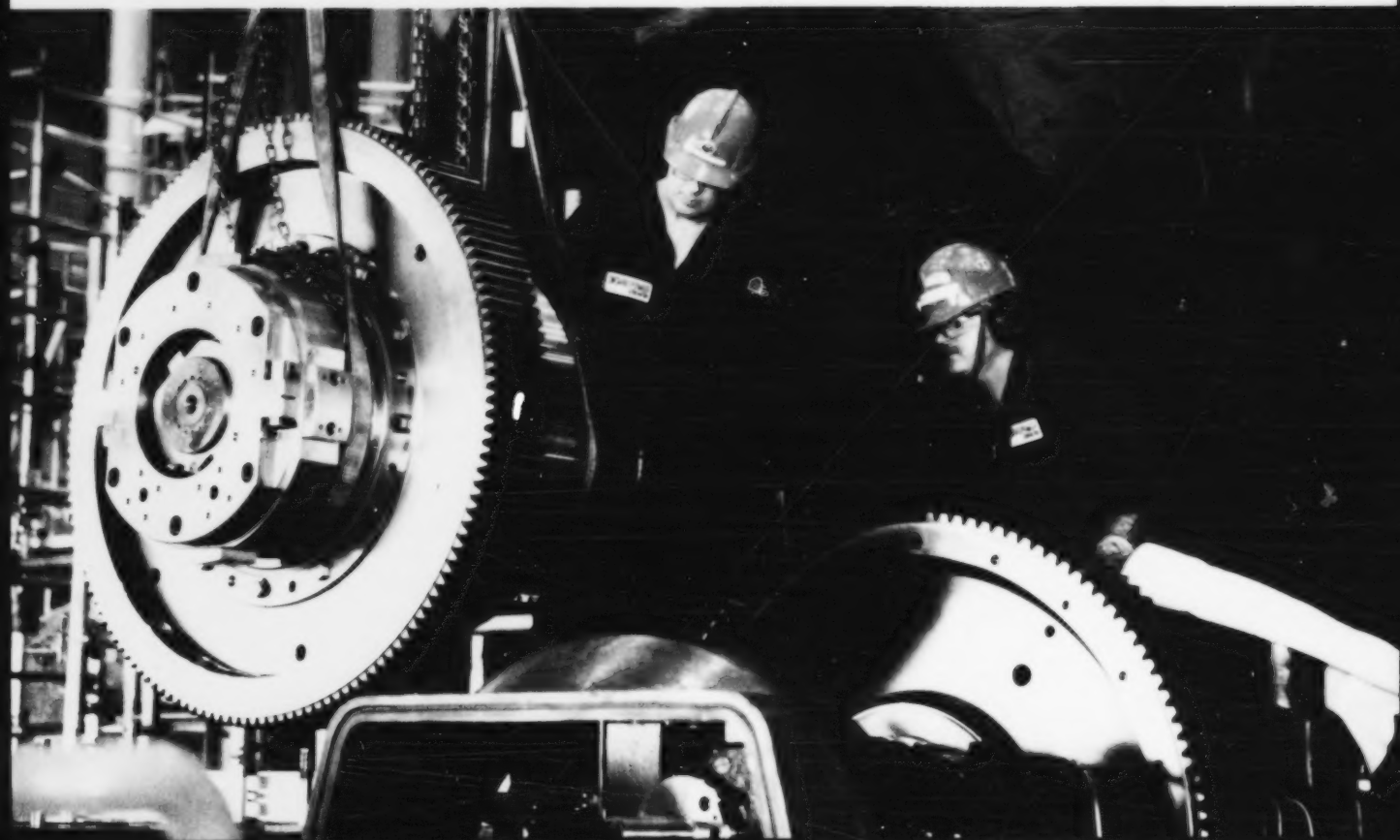


Sustainable Development Report 2007



It's all about performance



ONTARIOPOWER
GENERATION

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Performance Highlights & Challenges

Ontario Power Generation defines sustainable development as "embracing business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting and enhancing the human and natural resources that will be needed in the future."

OPG's Sustainable Development Performance Highlights for 2007 included:

- Approximately 72 per cent of OPG's electricity production was derived from hydroelectric and nuclear sources that were virtually free of air emissions causing smog, acid rain and global warming.
- The Greenhouse Gas Management Plan was launched, with a focus on investing in nuclear and hydro generation to reduce reliance on fossil fuels, improving the energy efficiency of facilities, use of bio-fuels as a partial replacement for coal, and expanding the biodiversity/tree planting program.
- OPG achieved an internal energy efficiency saving of 151.7 GWh, exceeding the self-imposed efficiency target of 133 GWh.
- The 2007 total acid gas emission rate of 4.83 grams per kilowatt hour was OPG's second lowest ever, and it was 37 per cent lower than it was ten years previously.
- The 2007 CO₂ emission rate from the fossil fuelled fleet was 979 tonnes/GWh-net, which was a 1.6 percent improvement over the 2006 rate.
- Approximately 348,000 trees were planted in 2007, for total planting to date of 2.8 million trees throughout southern Ontario.
- Pickering GS won the 2007 Corporate Habitat of the Year Award from the Wildlife Habitat Council.
- 600 OPG supervisors received sustainable development training, bringing the total training to date to 3,400 employees.
- The All Injury Rate (AIR) was 1.12 injuries per 200,000 hours worked (a 23 per cent improvement relative to 2006), and the Accident Severity Rate (ASR) was 1.56 days lost per 200,000 hours worked (a 73 per cent improvement relative to 2006). Both scores were within the Canadian Electricity Association's top performance quartile.
- The Corporate Citizenship Program provided support to over 900 registered charitable and non-profit organizations, with an emphasis on small contributions to grass roots initiatives in our host communities.
- OPG was named one of Canada's Top 100 Employers. For the second year in a row, OPG was also named one of the Greater Toronto Area's Top 50 Employers.

OPG's Outstanding Sustainable Development Challenges for 2007 included:

- The Environmental Performance Index (EPI) was 120, which reflects a decrease relative to the 2006 EPI, which was 132.5. The reduction in the EPI for 2007 vs. 2006 was, in part, attributable to two intermediate (Type B) spills which occurred in 2007.
- OPG incurred 55 moderate infractions in 2007, which was better than the benchmark of 68, yet it exceeded 2006 performance of 43 infractions incurred.

Company Profile

OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. OPG's focus is on the efficient production and sale of electricity from its generating assets, while operating in a safe, open and environmentally responsible manner.

OPG was established under the Business Corporations Act (Ontario) and is wholly owned by the Province of Ontario (the "Province").

In 2007, OPG had approximately 11,700 regular employees and generated 105.1 terawatt hours (TWh) of electricity. OPG's electricity generating portfolio as of December 31, 2007, had a total in-service capacity of 22,158 megawatts (MW), which consisted of:

- three nuclear generating stations with a capacity of 6,606 MW
- five fossil-fuelled generating stations with a capacity of 8,573 MW

- 64 hydroelectric generating stations with a capacity of 6,972 MW, and
- three wind generating stations (including a 50 per cent interest in the Huron Wind joint venture, which was sold in February 2008).

In addition, OPG, ATCO Power Canada Ltd. and ATCO Resources Ltd. co-own the 580 MW Brighton Beach gas-fired generating station. OPG also owns two other nuclear generating stations, which are leased on a long-term basis to Bruce Power L.P. ("Bruce Power").

Electricity Terms

One **megawatt (MW)** is one million watts. Megawatts are a measure of electricity supply capacity at a point in time.

One **kilowatt (kW)** is 1,000 watts; one gigawatt (GW) is one billion watts; and one terawatt (TW) is one trillion watts.

One **kilowatt hour (kWh)** is a measure of electricity demand per hour by customers. One kilowatt hour is the energy expended by fifty 20-watt compact fluorescent lights burning for one hour.

The average Ontario household uses approximately 1,000 kWh per month.

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3
Nuclear
Stations

5
Fossil-Fuelled
Stations

1
Co-owned
Gas-Fired Station*

64
Hydroelectric
Stations

3
Wind Power
Stations**

3
New Generation
Projects***



* The 580 MW Brighton Beach gas-fired generating station in Windsor is co-owned by OPG with ATCO Power Canada Ltd. and ATCO Resources Ltd. The station's capacity is not included as part of OPG's total in-service capacity. ** Includes a 50% interest in the Huron Wind joint venture (sold in February 2008). *** Projects of 100 MW or more in capacity with a planned start-up date of 2008 or later.

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3 Nuclear Stations

5 Fossil-Fuelled Stations

1 Co-owned Gas-Fired Station*

64 Hydroelectric Stations

3 Wind Power Stations**

3 New Generation Projects***



* The 580 MW Brighton Beach gas-fired generating station in Windsor is co-owned by OPG with ATCO Power Canada Ltd. and ATCO Resources Ltd. The station's capacity is not included as part of OPG's total in-service capacity listed above.

** Includes a 50% interest in the Huron Wind joint venture (sold in February 2008).

*** Capacity of two hydroelectric projects and one gas-fired generation project.

Message from the President of OPG and the Vice President of Sustainable Development

OPG had a positive year in 2007 with respect to its sustainable development performance. Accomplishments occurred in all three areas that define our sustainable development commitment -- environmental performance, social performance and economic contribution to Ontario. While there were aspects of our performance that could be improved, we are proud of our overall sustainable development record and we are committed to making it even better. This report -- our ninth -- documents and measures our progress. We look forward to continued progress in the years ahead.

Environmental Performance

OPG's 2007 environmental performance was better than target in several key areas. These included:

- regulatory compliance
- energy efficiency
- NO_x (nitrogen-oxide) emission rates from our fossil fuelled stations
- radiation emissions, and
- waste management.

We are pleased with this performance. In the area of regulatory compliance, for example, OPG reported no major infractions. Performance in nuclear waste management and conventional waste management was also very strong. Likewise, our energy efficiency efforts enabled us to save 151.7 GWh of electricity. This was more than 40 GWh above our 2006 performance.

We were disappointed by our performance in certain areas. We had a higher number of moderate infractions in 2007 than in 2006. Our hydro business experienced two "B-level" spills, exceeding the company's benchmark of zero spills in this category. In addition, our CO₂ (carbon dioxide) and acid gas emissions were higher than in 2006 -- primarily because we operated our fossil plants more frequently to adjust for lower nuclear and hydroelectric production in 2007. While our acid gas emissions were higher in 2007, they were still below levels mandated by the Province's regulations.

One of our most significant environmental developments in 2007 was the launch of OPG's Greenhouse Gas Management Plan. Designed to enhance OPG's contribution in the fight against climate

change, the plan commits OPG to an ambitious agenda that includes:

- investing in nuclear and hydro generation to reduce reliance on fossil fuels
- improving the energy efficiency of our facilities
- using bio-fuels as a partial replacement for coal, and
- expanding our biodiversity efforts.

Complementing our climate change strategy, we continued to pursue ongoing initiatives in biodiversity -- including the planting of 348,000 trees throughout Ontario in 2007. In total, OPG has planted 2.8 million native trees and shrubs across the Province since 2000.

In addition to tree planting, OPG operates highly successful and robust habitat management programs at its sites. A total of 11 OPG sites have been certified for their wildlife habitat programs by the Wildlife Habitat Council (WHC). In 2007, one of these sites -- Pickering GS -- was named 2007 Corporate Habitat of the year by the WHC.

OPG also continued its program to test the burning of biomass fuel in select units at its fossil stations. Complementing this initiative, our Atikokan GS is being used by Ontario's Bio-Energy Research Centre to conduct bio-energy initiatives and experiments.

Finally, we provided 600 new supervisors and managers with sustainable development training, bringing the total number of OPG employees who have received this training to 3,400. Employees are the key to achieving our sustainable development goals, and this program gives them important tools to help ensure success.

Social Performance

While our sustainable development efforts must benefit the environment, they must also directly benefit people – employees and all Ontarians, including many individuals who live near our generating facilities. Key drivers of OPG's social performance includes: safety; our reputation as an employer; and our community commitment. Our performance in these areas was strong in 2007.

In the area of public safety, OPG is committed to operating all of its facilities according to the most rigorous safety standards as set by our regulators and ourselves. In nuclear safety, for example, no member of the public has ever been harmed by radiation from any of OPG's nuclear stations or waste management facilities. We extended this excellent record in 2007 by putting safety first when making any operational decision. Following this approach, we made a conservative safety decision in June to shut down our entire Pickering A GS to perform modifications to its backup electrical system.

We had accomplishments as well in nuclear waste management – including receiving a 10-year license from our regulator to continue operating our Western Waste Management Facility (WWMF) in Kincardine, Ontario, for storing low and intermediate nuclear waste. We were supported in our license application by many members of the Kincardine community, which reflected well on the WWMF's strong safety record and the trust and confidence OPG has earned within the community.

OPG also continued to operate its highly respected and successful Public Water Safety Program which informs Ontarians of the risks of getting too close to our hydroelectric generating stations.

In workplace safety, OPG's 2007 performance was the best in its history and well within the top quartile of safety performance as set by the Canadian Electricity Association. This excellent performance was complemented by numerous safety milestones achieved at sites across the company – with many OPG stations, plant groups, and entire businesses achieving multiple years and multi-million hours without a lost

time injury. This record shows that we are making progress in achieving our goal of zero injuries.

OPG was also recognized for its efforts as an employer. In 2007, we were named as one of Canada's Top 100 Employers. For the second year in a row, we were also named one of the Greater Toronto Area's Top 50 Employers. OPG is committed to providing career opportunities, job satisfaction and a supportive workplace for employees and their families. Awards like these demonstrate that we are meeting this commitment.

Our community performance was impressive in 2007. OPG employees do a tremendous amount of community volunteer work – in education, sports, social services and in local and regional politics and business. They also give back to their communities to help those less fortunate. In 2007, OPG employees and pensioners contributed over \$2 million to registered charities.

As a corporate citizen, OPG supports non-profit, local initiatives that benefit education, the environment and the community. More than 900 such initiatives received support in 2007 – 13 per cent above the number supported in 2006. Most were grass roots community oriented initiatives.

Economic Performance

OPG's sustainable development commitment also benefits Ontario as a whole. In 2007, OPG made payments to the Province totaling \$690 million. This included payments in lieu of taxes, gross revenues charges, dividends, interest on long term debt and rebates.

OPG also provided economic support to the province through the purchase of goods and services that totaled \$3.3 billion.

Since virtually all of OPG's approximately 11,700 employees live in Ontario, they too contribute to the province through the payment of Ontario-based taxes and the purchase of Ontario-made goods and services. This is in addition to the many charitable donations they make and their volunteer activities.

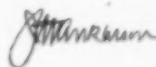
OPG's involvement in new generation development also benefits Ontario economically. In 2007, progress continued on current projects such as the Niagara Tunnel, the Lac Seul Generating Station (GS) in northwest Ontario, and the Portlands Energy Centre in Toronto, which OPG is building in partnership with TransCanada Energy Ltd. OPG is also pursuing several potential hydroelectric projects in Northern Ontario. These initiatives help stimulate employment and economic growth in the regions where they take place – including First Nations communities, several whom have signed settlement agreements with OPG.

Finally, OPG continued to mitigate the price of electricity for Ontario consumers. OPG receives fixed prices on production from its regulated and unregulated stations that are below Ontario's market prices. In 2007, the average price OPG received for its electricity production was 4.6 cents/kWh. In contrast, the average Ontario electricity market price was 5.1 cents. While this pricing structure reduces the revenues that could be used to strengthen OPG's business, it also helps to hold down the overall price of power in the Province.

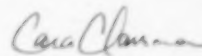
The Sustainable Development Imperative

OPG takes pride in being an open and transparent company, accountable to the Government and people of Ontario. This report is an important example of our commitment to these values. As awareness of the significance of sustainable development grows in our society, stakeholders are increasingly holding companies accountable for their actions. OPG applauds this development. We believe our sustainable development record is a good one. We also acknowledge that there are areas where we can – and will – do better. We encourage people to read this report and form their own judgment of our performance. If you have any questions, please contact us. Contact information is available on OPG's website – opg.com – and on the back cover of this report.

Going forward, we will continue to keep you informed of our progress as a sustainable development company, committed to doing our part to make Ontario a success – environmentally, socially and economically.



Jim Hankinson
President and CEO



Cara Clairman
Vice President
Sustainable Development





OPG and its conservation partners are engaged in substantial tree planting.

Since 2000

2.8 million

trees and shrubs planted by OPG and its conservation partners.

In 2007

348,000

trees and shrubs planted by OPG and its conservation partners.

In 2008

400,000

more trees will be planted

Accountability

OPG's President is accountable to the Board of Directors for making certain the company manages the environmental, social and economic aspects of its business in a manner consistent with OPG's Environmental Policy and Code of Conduct.

Site environmental and community advisors, working in collaboration with the Corporate Sustainable Development Group, are responsible for a variety of stewardship initiatives (described throughout this report) and sustainable development activities that take place across OPG's operations.

To ensure that OPG employees remain "ahead-of-the-curve" in the area of sustainable development, in 2007 the company continued a program initiated in 2003, requiring new supervisors and managers to participate in training entitled "Sustainable Development at OPG: Our Commitment to the Environment, Society and Economy". The purpose of this training, which remains ongoing, is to ensure that supervisors and managers can advise employees under their direction of the need and means to operationalize sustainable development on a daily basis. In 2007, approximately 600 employees from across OPG received sustainable development training, for total training of 3,400 employees to date.

In 2007, OPG engaged a Blue Ribbon panel of sustainable development experts to review its Sustainable Development 2006 Report, the purpose of which was to identify both the report's strengths and weaknesses. They were joined by members of OPG's Sustainable Development Group and Public Affairs in a "no holds barred" discussion. The panel made key recommendations to improve OPG's Sustainable Development Report – for example, the panel recommended that OPG prominently identify its definition of sustainable development (accordingly, see the top of page 1).



A Blue Ribbon panel reviewed OPG's Sustainable Development 2006 Report

Sitting, L to R, Kerf Elsey (President & CEO, Canadian Energy Efficiency Alliance), David Simpson (President, Interpraxis Consulting), Colin Isaacs (President, CIAL Group and Founder, Pollution Probe), Toby Heaps (Editor-in-Chief, Corporate Knights Magazine). Standing, L to R, OPG's Rob Lyng, Bob Osborne, Cara Clairman, Andy Hoffman, Blair Feltmate, Richard Schwass, Bob White (President, BRI International), Steve Hounsell (OPG), Kathrin Bohr (Vice President, Canadian Business for Social Responsibility) and Tammy Wong (OPG).



Environmental Performance

Commitment to sustainable development is reflected in OPG's efforts to minimize the environmental footprint of its operations, while meeting the company's obligation to produce power for the residents of Ontario.

Key Environmental Performance Benchmarks

OPG must comply with literally hundreds of environmental laws, regulations, by-laws and requirements contained in operating permits and Certificates of Approval. We consider regulatory compliance to be a minimum, non-negotiable standard for progress towards sustainable development by our company, and we have established voluntary internal environmental targets to help ensure that our overall performance continues to improve beyond compliance.

Accordingly, each year OPG sets key benchmarks, or targets, for improving environmental performance – progress towards meeting benchmarks is tracked and managed through the Environmental Management System (EMS). These efforts are reinforced by an Annual Incentive Plan that links management's compensation to meeting or surpassing established environmental targets.

As is evident based on a review of Table 1, OPG's success in meeting 2007 environmental benchmarks was mixed.

Table 1: Corporate Environmental Performance Benchmarks (2007)
(All benchmarks are voluntary except where otherwise specified)

Category	2007 Benchmark	2007 Year-End	Benchmark Met
Spills ⁽¹⁾	Major A = 0	0	Yes
	Moderate B = 0	2	No
	Minor C ≤ 20	6	Yes
	Minor D ⁽²⁾ - No Adverse Environmental Effect	22	No Benchmark
Regulatory Compliance	Major Infractions ⁽³⁾ = 0	0	Yes
	Moderate Infractions ⁽⁴⁾ ≤ 68	55	Yes
	Minor Infractions (No Benchmark)	49	No Benchmark
Energy Efficiency	133 GWh saved (Hydro - 28 GWh, Fossil - 105 GWh)	151.7	Yes
Air Emissions	NO _x (as NO ₂) ≤ 26 Gg net ⁽⁵⁾	35.3 gross	Yes ⁽⁵⁾
	SO ₂ ≤ 127 Gg net ⁽⁵⁾	104.6 gross	Yes
	Total Acid Gas ≤ 236 Gg gross ⁽⁵⁾	139.9	Yes
	NO _x (as NO ₂) rate (Gg/TWh-delivered) ⁽⁶⁾	1.20	Mixed ⁽⁷⁾
	CO ₂ (gross Tg)	28.4 gross	No Benchmark
Critical Group Dose	Pickering ≤ 10 µSv	2.6	Yes
	Darlington ≤ 7.5 µSv	1.4	Yes
Low & Intermediate Level Radioactive Waste	≤ 3,833 m ³	3,043 m ³	Yes
Ash & Gypsum Diverted from Landfill	≥ 625 Gg	761.6 Gg	Yes

- (1) OPG ranks the severity of spills according to guidelines set by the company's Spills Severity Rating Procedure, which mirrors Ontario Ministry of the Environment guidelines.
- (2) Reporting of Category D spills (minor spills with no adverse environmental effect) commenced July 1, 2005, in response to passage of the *Ontario Environmental Enforcement Statute Law Amendment Act* in June 2005.
- (3) Major infractions are defined as Director's Orders, charges and convictions.
- (4) Moderate infractions include Municipal Industrial Strategy for Abatement (MISA) and Certificate of Approval violations and provincial officers' orders.
- (5) Emission reduction allowances and credits were used to meet net emission reduction targets for NO_x. O.Reg. 397/01 allocates 26.0 Gg for NO_x and 127 Gg for SO₂ allowances in 2007 with provision for the use of limited amounts of emission reduction credits to offset emissions in excess of the allowance allocations. Notwithstanding the preceding, O.Reg. 153/99 limits OPG's total gross SO₂ emissions to 175 Gg and the total gross acid gas emissions to 236 Gg. NO_x is expressed as mass NO₂.
- (6) NO_x emission rate targets are based on "delivered energy". Delivered energy is defined as "gross energy output from a generating unit, less unit service (energy supplied by and consumed by the unit), while connected to the electricity grid". The NO_x emission rate (Gg/TWh-delivered) is the total of all fossil station NO_x emissions divided by the total delivered energy from all fossil units.
- (7) NO_x rate targets vary by generating unit. Two of our fossil station's NO_x target rates were not met due to extended minimum and low load operation.

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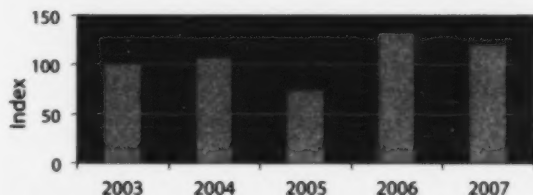
Category	2007 Benchmark	2007 Year-End	Benchmark Met
Spills ⁽¹⁾	Major: 0 Moderate: 0 Minor: 0 Adverse DPE, only absence of adverse environmental effect		Yes No Yes No Benchmark
Regulatory Compliance	Regulatory infractions: 0 Municipal Industrial Strategy for Abatement (MISA) and Certificate of Approval violations and provincial officers' orders: 0 Adverse regulatory: 0 (No Benchmark)		Yes Yes No Benchmark
Energy Efficiency	CO ₂ emissions: 2007: 20,000 tonnes (2006: 18,000 tonnes)		Yes
Air Emissions	NO _x : 140,000 kg (2006: 140,000 kg) SO ₂ : 1,000 Gg (2006: 1,000 Gg) Total Acid Gases: 200,000 kg (2006: 200,000 kg) HCl, HF, HCN, HCNH ₂ , TSP, TSS, particulates: 0 kg (2006: 0 kg)		Yes ⁽³⁾ Yes Yes Mixed ⁽⁷⁾ No Benchmark
Critical Group Dose	Population: 15,000 Dose: 10 mSv		Yes Yes
Low & Intermediate Level Radioactive Waste	0 kg (2006: 0 kg)		Yes
Ash & Gypsum Diverted from Landfill	0 kg (2006: 0 kg)		Yes

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- (7) NO_x rate targets vary by generating unit. Two of our fossil station's NO_x target rates were not met due to extended minimum and low load operation.

OPG's environmental practices are assessed annually using an Environmental Performance Index (EPI). The EPI was first introduced in 2001, and it is based upon weighted scores calculated relative to voluntary performance benchmarks for spills, regulatory compliance, energy efficiency, radiation emissions and waste management. The scoring system ranges from zero to 150, with higher scores reflecting better performance. An overall score of 100 indicates that, on average, benchmarks were met, scores greater than 100 indicate performance better than benchmarks, and scores less than 100 indicate performance that did not meet benchmarks.

In 2007, OPG's EPI was 120, which reflects a decrease relative to the 2006 EPI of 132.5 (see Figure 1). The reduction in the EPI for 2007 vs. 2006 was, in part, attributable to two intermediate (Type B) spills which occurred in 2007.

Figure 1: Environmental Performance Index, 2003 - 2007



ISO 14001: 2004: OPG's ISO 14001 Environmental Management System (EMS) helps to ensure that the company complies with its environmental policy within a framework of continual improvement. OPG first received certification for its Corporate level EMS and all of its generating facilities in 1999, with the exception of Evergreen Energy, which was certified in 2000. In 2007, the Corporate level EMS and the EMSs for all of the generating facilities withstood an external registration audit process to retain certifications based on an upgraded ISO 14001:2004 standard.

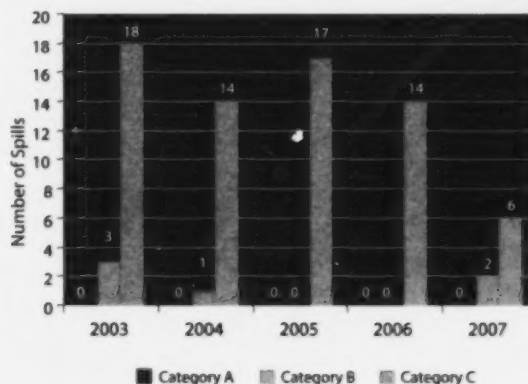
e8: OPG's commitment to continual improvement is, in part, reflected in its ongoing participation in e8. Created in the wake of the 1992 Rio Summit, the e8 is a non-profit international organization, composed of nine leading electricity companies from the G8 countries, which promotes sustainable energy development through electricity sector projects and human capacity building activities in developing nations worldwide.

Spills

The classification of spills is based on their potential impact on the environment: Category A spills have a major impact, Category B spills have a moderate impact, and Category C spills have a minor impact. These categories mirror the Ontario Ministry of the Environment (MOE) guidelines. In 2005, OPG created a category of D spills, which are deemed to have no environmental impact, but that OPG nonetheless wishes to avoid.

In 2007, OPG experienced zero category A spills, two B spills (see inset), six C spills and 22 D spills.

Figure 2: Spills Performance, 2003 - 2007¹



¹ Category A, B and C spills have major, moderate and minor environmental impacts, respectively.

Regulatory Compliance

OPG must comply with a multitude of requirements contained in statutes, regulations, bylaws, operating permits and Certificates of Approval.

Non-compliance events are categorized by OPG as major, moderate or minor.

Major Infractions: Major infractions include Director's Orders, charges or convictions.

In 2007, OPG experienced 0 major infractions, which met OPG's self-imposed benchmark.

Two Moderate "B" Spills Occurred in 2007

NORTHEAST PLANT GROUP Abitibi Canyon GS

7,455 litres of non-PCB transformer oil drained from a transformer into the oil compartment of a cooling system, through a breach into the water compartment of the cooling system, and out through the cooling water drain valve into the Abitibi River. Upon discovery of the spill, the Ministry of the Environment (MOE) was contacted, and an independent investigation/ root cause analysis was completed.

NORTHEAST PLANT GROUP Timmins Service Centre

517 litres of hydraulic oil was released from a vehicle hoist hydraulic power supply. The MOE Spills Action Centre and the Municipality were notified. Upon identification of the root cause, corrective actions were taken to limit the probability of a recurrence.

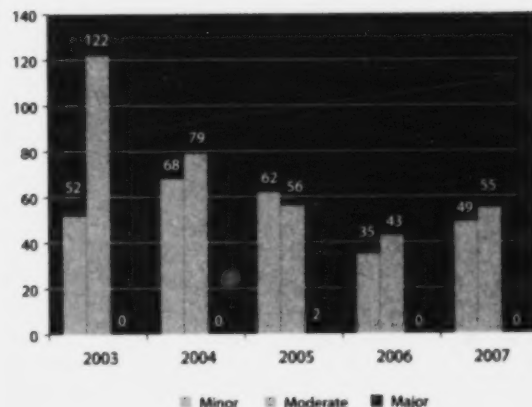
Moderate Infractions: Moderate infractions include those that cause, or may likely cause, an adverse environmental effect, limit OPG's ability to operate its plants, may result in fines or charges, or stand to impact the reputation of the company. These infractions include all Certificate of Approval and MISA infractions, notices of violation, and provincial officer's orders.

OPG incurred 55 moderate infractions in 2007, which was better than the benchmark of 68, yet it was higher than the performance in 2006, when 43 infractions were incurred.

Minor Infractions: A total of 49 minor infractions occurred in 2007.

A five year summary of regulatory compliance performance trends is shown in Figure 3. As is evident, overall performance across the categories of major, moderate and minor infractions has been trending primarily downward since 2003, with slight upward performance in 2007. Accordingly, in 2008 a focus on root cause analyses and corrective actions regarding infractions will be applied in an effort to drive continual improvement regarding this performance measure.

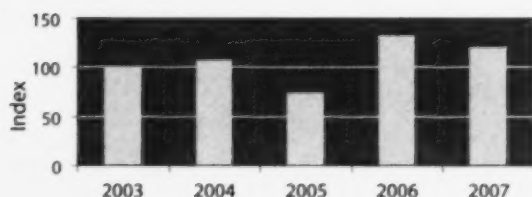
Figure 3: Environmental Regulatory Infractions, 2003 - 2007



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In 2007, OPG's EPI was 120, which reflects a decrease relative to the 2006 EPI of 132.5 (see Figure 1). The reduction in the EPI for 2007 vs. 2006 was, in part, attributable to two intermediate (Type B) spills which occurred in 2007.

Figure 1: Environmental Performance Index, 2003 - 2007



ISO 14001: 2004: OPG's ISO 14001 Environmental Management System (EMS) helps to ensure that the company complies with its environmental policy within a framework of continual improvement. OPG first received certification for its Corporate level EMS and all of its generating facilities in 1999, with the exception of Evergreen Energy, which was certified in 2000. In 2007, the Corporate level EMS and the EMSs for all of the generating facilities withstood an external registration audit process to retain certifications based on an upgraded ISO 14001:2004 standard.

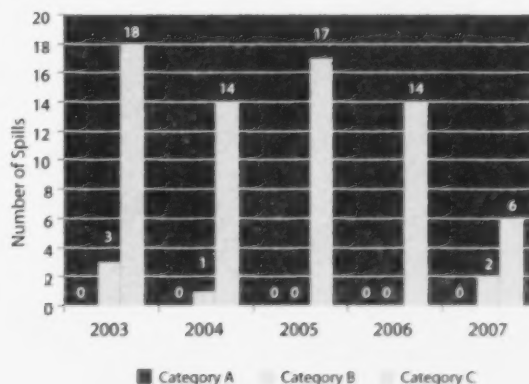
e8: OPG's commitment to continual improvement is, in part, reflected in its ongoing participation in e8. Created in the wake of the 1992 Rio Summit, the e8 is a non-profit international organization, composed of nine leading electricity companies from the G8 countries, which promotes sustainable energy development through electricity sector projects and human capacity building activities in developing nations worldwide.

Spills

The classification of spills is based on their potential impact on the environment: Category A spills have a major impact, Category B spills have a moderate impact, and Category C spills have a minor impact. These categories mirror the Ontario Ministry of the Environment (MOE) guidelines. In 2005, OPG created a category of D spills, which are deemed to have no environmental impact, but that OPG nonetheless wishes to avoid.

In 2007, OPG experienced zero category A spills, two B spills (see inset), six C spills and 22 D spills.

Figure 2: Spills Performance, 2003 - 2007¹



¹ Category A, B and C spills have major, moderate and minor environmental impacts, respectively.

Regulatory Compliance

OPG must comply with a multitude of requirements contained in statutes, regulations, bylaws, operating permits and Certificates of Approval.

Non-compliance events are categorized by OPG as major, moderate or minor.

Major Infractions: Major infractions include Director's Orders, charges or convictions.

In 2007, OPG experienced 0 major infractions, which met OPG's self-imposed benchmark.

Two Moderate "B" Spills Occurred in 2007

NORTHEAST PLANT GROUP Abitibi Canyon GS

7,455 litres of non-PCB transformer oil drained from a transformer into the oil compartment of a cooling system, through a breach into the water compartment of the cooling system, and out through the cooling water drain valve into the Abitibi River. Upon discovery of the spill, the Ministry of the Environment (MOE) was contacted, and an independent investigation/ root cause analysis was completed.

NORTHEAST PLANT GROUP Timmins Service Centre

517 litres of hydraulic oil was released from a vehicle hoist hydraulic power supply. The MOE Spills Action Centre and the Municipality were notified. Upon identification of the root cause, corrective actions were taken to limit the probability of a recurrence.

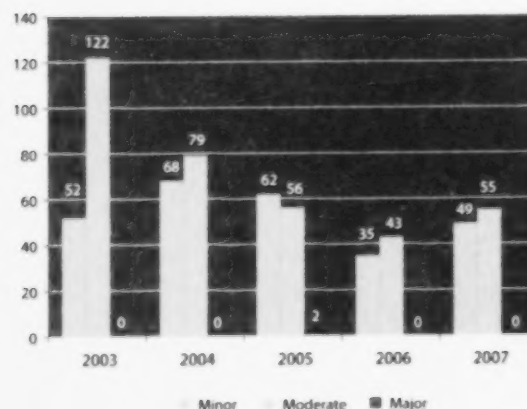
Moderate Infractions: Moderate infractions include those that cause, or may likely cause, an adverse environmental effect, limit OPG's ability to operate its plants, may result in fines or charges, or stand to impact the reputation of the company. These infractions include all Certificate of Approval and MISA infractions, notices of violation, and provincial officer's orders.

OPG incurred 55 moderate infractions in 2007, which was better than the benchmark of 68, yet it was higher than the performance in 2006, when 43 infractions were incurred.

Minor Infractions: A total of 49 minor infractions occurred in 2007.

A five year summary of regulatory compliance performance trends is shown in Figure 3. As is evident, overall performance across the categories of major, moderate and minor infractions has been trending primarily downward since 2003, with slight upward performance in 2007. Accordingly, in 2008 a focus on root cause analyses and corrective actions regarding infractions will be applied in an effort to drive continual improvement regarding this performance measure.

Figure 3: Environmental Regulatory Infractions, 2003 - 2007

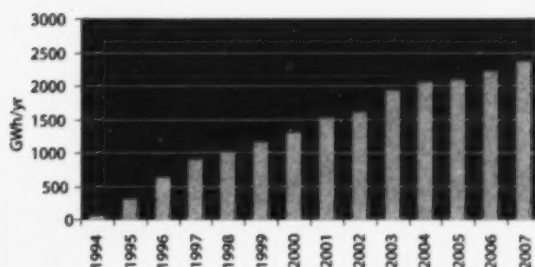


Energy Efficiency

Beginning in 1994, OPG's predecessor company, Ontario Hydro, committed to an energy efficiency program, and 13 years later the program remains highly successful. Indeed, from 1994 – 2007, OPG's annualized energy savings have increased by approximately 2,373 GWh, resulting in annual savings of \$109 million (at a market average of 4.6 cents/kWh) and emission savings of 2.32 million tonnes of CO₂ (see Figure 4).

In 2007, OPG achieved an internal energy efficiency saving of 151.7 GWh, which was better than the company's self-imposed benchmark of 133 GWh. Efficiencies originated primarily from the installation of high efficiency fans and turbines, improvements to precipitators and condensers at Nanticoke (123 GWh/yr), and turbine runner upgrades and other equipment improvements across the hydroelectric stations (28 GWh/yr).

Figure 4: Cumulative Energy Efficiency Savings, 1994 - 2007



Nanticoke Environmental Improvements

In 2007, Nanticoke completed a two year program of environmental improvements. The 22 projects targeted emission reduction, efficiency improvement and noise control opportunities.

Precipitators, the eight large electronic air filters that collect fly ash, were improved and in one case rebuilt. These, along with other improvements, resulted in a 20 per cent reduction in particulate emissions from the plant. Major noise reduction initiatives have reduced the plant's impact on neighbours.

Energy efficiency projects produced some of the most noteworthy results. The replacement of two of the plant's eight high pressure turbines, and the introduction of variable speed controls on two energy intensive fans, provided major savings. These improvements, in combination with turbine replacements that were completed in 2003 and 2004, have produced annual energy savings of approximately 350 million kilowatt hours per year – enough electricity to power more than 29,000 Ontario homes without producing additional emissions.



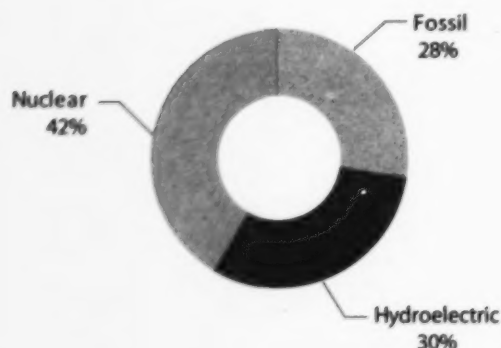
Nanticoke GS wetland

Air

Generation Mix

In 2007, approximately 72 per cent of OPG's electricity production was derived from hydroelectric and nuclear sources that were virtually free of air emissions causing smog, acid rain and global warming (see Figure 5).

Figure 5: OPG's 2007 Generation Mix



The remaining production came from five fossil fuelled stations. Four of these stations use coal as their primary source of energy and one is dual-fuelled by oil and natural gas. An advantage of fossil stations, relative to nuclear and hydroelectric facilities, is their capacity to respond to short term peaks in demand for power.

OPG's fossil fuelled plants supply electricity demand that is not first met by other Ontario supply sources such as nuclear, hydro and Ontario's growing portfolio of alternative generation. They provide the flexibility to meet changes in demand that occur by the minute, day and year. Due to a slight increase in Ontario electricity demand in 2007, and lower production from nuclear and hydro facilities, OPG's fossil fuelled plants produced 16 per cent more electricity in 2007 than they did in 2006. As a result, total emissions of CO₂, SO₂ and NO_x increased.

It is noteworthy that based upon a Memorandum of Agreement, between the Province of Ontario and OPG, OPG has been given direction that it "will not pursue investment in non-hydro-electric renewable generation projects unless specifically directed to do so by the shareholder." Thus, OPG is not at liberty to bring into its generation mix non-hydro-electric "green energy" supply, unless the shareholder so directs.

Nitrogen Oxides (NO_x) and Sulphur Dioxide (SO₂) Emissions

Generating electricity through the combustion of coal results in air emissions that include nitrogen oxides (NO_x), sulphur dioxide (SO₂) and carbon dioxide (CO₂). Various other contaminants, released in lesser amounts as a result of combustion, are documented in Appendix B.

NO_x and SO₂ emissions lead to the formation of acid gas precipitation, ground-level ozone and smog. Accordingly, recognizing that NO_x and SO₂ can have negative environmental impacts, these emissions have long been the focus of OPG's air emission reduction efforts.

A key measure of environmental performance is the emission rate of acid gas (NO_x plus SO₂ per kilowatt hour of electricity produced) (see Figures 6 and 7). The 2007 total acid gas emission rate of 4.83 tonnes/GWh was OPG's second lowest ever and was 35 percent lower than it was 1997. This result is partially attributable to the fact that Lambton GS Units 3 & 4 are outfitted with flue gas desulphurization (FGD) and Selective Catalytic Reduction (SCR) equipment for NO_x reduction, and as such they are recognized as two of the cleanest coal-fired generating units in North America. Similarly, two units at Nanticoke GS are also equipped with SCR technology.

Figure 6: NO_x Emissions and Emission Rates for OPG Fossil Generation (2003 – 2007)

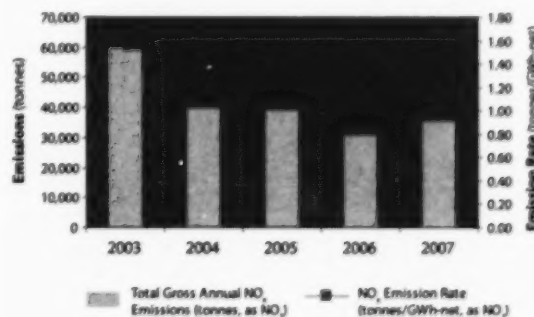
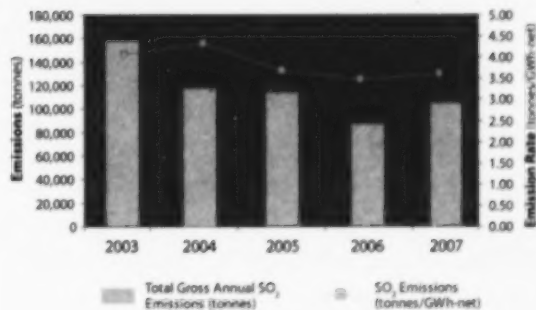


Figure 7: SO₂ Emissions and Emission Rates for OPG Fossil Generation (2003 – 2007)



Major reductions in SO₂ emissions and emission rates were achieved by OPG through the 1980s by burning more lower sulphur coal in the fossil fuel mix. A step change was achieved in the early 1990s with the addition of FGD to two units at Lambton GS. Although higher levels of generation in 2007 resulted in higher total emissions, the SO₂ emission rate in 2007 was nonetheless the second best in OPG's history.



"With the government's [Province of Ontario] direction to phase out the use of coal, our challenge

is to maintain safety, reliability and environmental performance. We will continue to assess and implement prudent environmental improvements at our coal plants for as long as they are needed."

Jim Twomey
Executive Vice President, Fossil

Greenhouse Gas (GHG) Emissions Management

OPG's primary greenhouse gas (GHG) emission is CO₂, released through the operation of fossil fuelled generating stations. In 2007, OPG generated approximately 72 per cent of its energy from nuclear and hydroelectric sources, which avoided the equivalent emission of 74.4 million tonnes of CO₂ that would have been released had that electricity been generated from fossil fuelled stations.

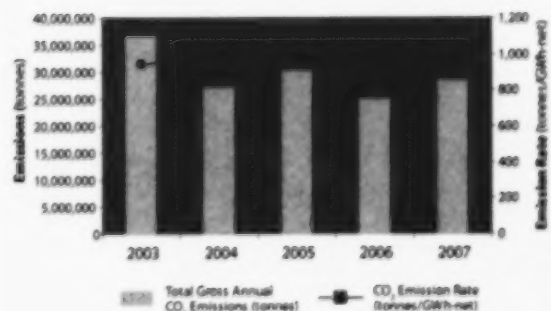
In 2007, OPG's total gross CO₂ emissions were 28.4 million tonnes (see Figure 8). The CO₂ emission rate from the fossil fuelled fleet was 979 tonnes/GWh-net. This rate was a 1.6 per cent improvement over the 2006 emission rate.

The CO₂ emission rate varies annually and is influenced by the distribution of generation across the fossil fleet. The 2007 CO₂ emission rate was the lowest since 2003. However, as a result of greater production from our fossil plants in 2007, OPG's total CO₂ emissions increased. CO₂ emissions have been within 10 per cent of 1990 levels - the base year for Kyoto Protocol - three of the past four years.

OPG's fossil plants will continue to manage CO₂ emissions by taking advantage of potential efficiency improvements. Coal fuelled plants are also exploring opportunities to co-fire coal with biomass fuels such as agricultural and forestry by-products (see inset p.16).

As a complement to the Province of Ontario's direction to phase out coal energy production, OPG established its Greenhouse Gas Management Plan in 2007 (see inset p.17).

Figure 8: CO₂ Emissions and CO₂ Emission Rates for OPG Fossil Generation (2003-2007)





Nanticoke GS Biomass Testing

With continued support from the Ministry of Agriculture and Ontario Millers Association, Nanticoke GS ran test burns that add biomass, in the form of wheat shorts or grain screening, to its fuel mix. In July 2007, Nanticoke GS passed a milestone when renewable biomass electricity production exceeded the needs of 1,000 households for one month – approximately the same amount of energy produced each year by the wind turbine located on the grounds of the Canadian National Exhibition, Toronto.

OPG's Greenhouse Gas (GHG) Management Plan

In 2007, OPG's Executive Committee approved OPG's six point GHG Management Plan:

- 1 Invest in Refurbishment and New Development of Low and Non-Emitting Generation Sources:** By continuing to invest in the refurbishment of facilities and the development of generation that is virtually GHG emissions free, such as nuclear and hydroelectric sources, OPG will reduce its reliance on coal fuelled generation.
- 2 Promote New Energy Efficiency and GHG Reductions at Plants:** Plants will identify energy efficiency and load displacement opportunities as the basis for setting multi-year energy efficiency targets.
- 3 Increase Use of Biofuels to Displace Fossil Fuels:** Biomass co-firing is a recognized method of reducing net CO₂ emissions and it will form a substantial component of OPG's GHG management plan.
- 4 Expand the Corporate Biodiversity/Tree Planting Program:** Since 2000, OPG has planted 2.8 million native trees to restore 1,200 hectares of forest habitat in southern Ontario. This initiative will offset 1.6 million tonnes of CO₂ over the lifetime of the trees. OPG will continue this program by identifying new sites for tree planting. In 2007, for the first time OPG supported the planting of trees within the City of Toronto.
- 5 Research Impacts of Climate Change on Existing and Future Operations:** Climate change may impact water availability, lake levels and water temperatures in Ontario over time. These changes are likely to impact OPG's existing and future operations in several ways, such as hydroelectric generation capacity, coal and ash transportation via waterways, and the efficiency of heat transfer to cooling water at our fossil and nuclear plants. OPG will support research to determine the potential impacts that climate change may have on its business.
- 6 Monitor, Measure, Verify, Report and Educate:** OPG will monitor, measure and report the results of its GHG reduction and mitigation efforts. Communication to stakeholders will be through OPG's major publications, such as the Sustainable Development Report, Annual Report and Quarterly Environmental Report to the Board of Directors

Land

Radiation

The operation and maintenance of OPG's nuclear reactors releases low levels of radioactivity. The design of the nuclear plants minimizes these releases through, for example, multiple passive barriers including a one kilometre exclusion zone separating the public from the reactor building. Air dryers are used to remove tritium from the air, and filters capture particulate matter and iodine. Operating procedures also protect the health of employees and the public.

"Critical Group Dose" is a method used to measure radiation exposure to members of the public who live in close proximity to nuclear plants. Critical Group Dose calculations focus on the public's actual eating and drinking habits as obtained from survey data. The survey includes six age groups: three month old nursing infant, one year old infant, children aged five, 10 and 15 years and adult. Critical Group Dose is measured in microsieverts (μSv), an international unit.

In 2007, Critical Group Dose levels for Pickering GS and Darlington GS were 2.6 and 1.4 μSv , respectively, substantially below the limit of 1,000 μSv set by the Federal government. By comparison, the average Canadian receives about 2,000 μSv per year from natural sources such as cosmic rays and radon in the soil.

Low and Intermediate Level Radioactive Waste (LILRW)

Nuclear operations produce Low and Intermediate Level Radioactive Waste (LILRW), which may include gloves, coveralls, booties, wipes and tools that have been radioactively contaminated (see inset "Suited Up" nuclear employees, opposite page). In 2007, LILRW production (3,043 m^3) was better than the annual performance benchmark (3,833 m^3).

The 2007 LILRW performance was a significant improvement over 2006, when year-end waste production was 3,455 m^3 . This result reflects positive actions taken to address external and internal assessments – by the World Association of Nuclear Operators - WANO, Electric Power Research Institute - EPRI, and the Operational Safety and Review Team - OSART) – which focused on OPG nuclear's LILRW Program. These assessments indicated there was "room for improvement" in nearly all program elements. Accordingly, in 2007, Darlington GS focused on a de-packaging program, while Pickering GS implemented a new re-washables program.

At Pickering GS, the number of outages is a large contributor to LILRW. The 2007 LILRW produced at Pickering GS (2,041 m^3) was 26 per cent below the 2007 benchmark (2,748 m^3). Improved LILRW performance at Pickering GS was the result of the implementation of three re-washable products station wide.

Ongoing initiatives to reduce the creation of LILRW at OPG's nuclear facilities include:

- segregation of plastic laundry waste bags (introduced in 2006)
- implementation of new re-washable products such as tritium hoods
- observation and coaching program to support waste minimization during outages, and
- additional pre-job briefings and outage awareness bulletins.

At Darlington GS, a 5-year radioactive waste reduction plan has been prepared, which will focus on the following initiatives:

- a self-assessment program to reduce radioactive waste



"Suited Up" Nuclear Employees

- expansion of a material de-packaging program, both with suppliers and in stores, and
- implementation of new waste reduction measures such as source reduction, segregation and new decontamination methods.

Ash and Gypsum Diversion

Coal fly ash, coal bottom ash and gypsum are by-products of fossil fuel combustion. To turn this "waste" into commercial products, OPG has developed markets for these by-products. Specifically, fly ash is used for the manufacture of cement and concrete, in controlled low strength material or flowable fill applications, and it is also used in engineered landfills. Bottom ash is used as granular fill in road beds and gypsum is used for the manufacture of wallboard. OPG is also continuing to explore the potential for coal fly ash to be used as filler in paint and plastics, and as a soil conditioner.

In 2007, OPG utilized 64 per cent of its total ash and gypsum production, or 760,057 tonnes, out of a total production of 1,183,383 tonnes. This result was over 20 per cent better than the performance benchmark of 625,000 tonnes and reflects OPG's third best utilization of this by-product since 2003. For solid combustion by-products that are not used, they are sent to a recoverable landfill where they may be subsequently used in the event that commercial markets develop.

PCB Management

Although OPG is not yet required to eliminate PCBs, the company's policy on PCB management mandated the phase-out and destruction of 81 per cent (relative to 1994 inventories) of in-storage PCB waste and high-level in-service PCBs by 2005, and the remainder by 2015.

OPG is on track to eliminate all of its in-storage PCB waste and in-service high-level PCBs by the end of 2008. Building upon the initiative of its predecessor company, Ontario Hydro, OPG has reduced the inventory of in-service PCBs and PCB waste by approximately 98 per cent since 1994. In 2007, OPG shipped approximately 43 tonnes of high- and low-level PCB waste for destruction. As of December 2007, OPG's PCB waste and in-service PCB equipment inventory was 57 tonnes, as compared to 3,427 tonnes in 1994 (excluding PCB equipment controlled by Bruce Power).

Mercury Monitoring and Reporting

In 2007, OPG continued to implement a voluntary mercury monitoring and reporting program. Through extensive testing, the work provides valuable information on the effect that differing coal blends and generating unit configurations have on mercury capture. This important technical information supported the development of the Canada-wide Standard and protocols governing mercury emissions from coal-fired power plants and prepared OPG to implement the standard as it applies in Ontario.

Information on OPG's mercury monitoring program can be found at the CEA mercury program website: ceamercuryprogram.ca.

Further information on the Canada-Wide Standard can be found at the CCME website: ccme.ca.

Land Assessment and Remediation

In 1997, in response to a Director's Order from the Ontario Ministry of the Environment, OPG introduced a program to assess and remediate historical contamination on properties occupied by its generating facilities. The contaminants of concern were fuel oil, transformer oil, waste lubricants and tritium. Sites were assessed and ranked as high, medium and low in reference to the need for remediation. OPG's first Site Assessment Plan, filed with the Ministry in 1998 and each year thereafter, identified 50 high priority sites with known or potential contamination. OPG has completed all of the assessments required by the Director's Order, and the Order was closed out by the Ministry of the Environment, March 2004. Assessment of medium and low priority sites continues under OPG's voluntary site assessment program.

At the end of 2007, remediation of 33 sites had been completed. Remediation was ongoing at 9 sites and planned for four additional sites starting in 2008. By the end of 2009, remediation of all medium and low priority sites will be complete.

Other Contaminants

OPG's National Pollutant Release Inventory (NPRI), which documents emissions to air, water and land for 2006, is presented in Appendix B. Based on this data, compiled by Environment Canada, no OPG plant is ranked among the 100 facilities in Ontario which release the largest amounts of known carcinogens to air or water.

For detailed information on the breakdown of OPG's NPRI data by emissions to air, water and land please visit the NPRI web site at:

ec.gc.ca/pdb/npri/npri_home_e.cfm

Biodiversity and Habitat Stewardship

The conservation of biological diversity is an integral part of OPG's sustainable development efforts. Biodiversity, as a term, refers to the variety of life on earth. It includes the diversity of ecosystems, the diversity of species within those ecosystems and the genetic diversity within species. From an OPG perspective, biodiversity refers to the variety of life in the regions where we operate or those that we may affect.

OPG has a proud history as a company working to protect nature. Our Biodiversity Policy goal is to demonstrate that we can co-exist with nature without causing or contributing to the long-term decline of species, or the habitats upon which they depend, on a regional basis. Our policy and our conservation actions demonstrate that industry can and does have a role to play in conserving Ontario's biodiversity. Our actions support Ontario's Biodiversity Strategy to protect what sustains us. That strategy recognizes that all levels of government, non-governmental organizations, industry and the community in general must cooperate in the care of Ontario's rich biological assets.

Why should OPG care about the conservation of biodiversity? There are many who fundamentally believe that society has a moral imperative to co-exist with the rest of nature, that the rest of life matters and that our stewardship may well be its only long term hope. There is also a more fundamental reason, that of enlightened self-interest predicated on the essential services that biodiversity, our ecosystems, provide to society. Those ecosystem goods and services include

life sustaining clean air and water, productive soils and renewable resources to both feed and shelter us and to provide the raw materials to sustain our economy. The fact remains that we could not survive without the services that biodiversity provides. That essential imperative to conserve biodiversity is captured in the title of Ontario's Biodiversity Strategy - "Protecting what Sustains Us". That same imperative is also captured in various government regulations and policies to conserve biodiversity and protect species at risk.

In the spirit of conservation and stewardship, each of OPG's nuclear, fossil and hydroelectric plant groups have their own biodiversity plans to help protect and enhance significant habitats and the species they support. OPG recognizes that our effects on nature do not stop at the boundaries of our plants, nor do our efforts to protect and restore nature. Accordingly, we have invested in significant habitat protection and restoration efforts in the communities where we operate and in strategic locations across southern Ontario, including some of the most biologically imperiled regions in Canada.

The following examples profile means by which OPG is conserving biodiversity.

Hydro Generation's Contribution to Biodiversity

The hydro plant groups are well engaged in the inventory, protection and enhancement of appropriate habitats at their sites, largely through the water management planning process. The management of fish passage issues and appropriate water flows and levels for spawning activity are just some of the issues routinely managed by hydro. Additionally, they have been pro-active in partnering with external organizations to further enhance habitat conservation efforts, as part of their water management process.

The biodiversity conservation efforts at our hydro plants include many programs ranging from wetlands management and species at risk management, to the protection and restoration of significant terrestrial habitats, to water flow management for fish spawning, to rescue operations for stranded Lake Sturgeon, to an impressive stocking program for the American eel to help offset widespread population declines.

Nuclear Generation's Contribution to Biodiversity

The nuclear generation group at OPG continues to support robust biodiversity programs that have earned



OPG Biodiversity Project at Long Point Conservation Reserve

the support of staff, the local community and local environmental groups. Their efforts have also been well recognized internationally as an example of what industrial sites can do to conserve biodiversity and to educate people on the need to conserve biodiversity.

Of all OPG's generating facilities, Darlington GS was the first plant to be Wildlife Habitat Council (WHC) certified, and it was also distinguished with the international Rookie of the Year Award in 1997 (also see Wildlife Habitat Council Recognizes OPG's Commitment to Biodiversity). Darlington's efforts have not waned and they have been successful ever since in maintaining their certification, and indeed have been profiled by the WHC for their biodiversity and educational efforts. Darlington was recognized yet again in 2007 with WHC's Signatures of Sustainability Award for their efforts on biodiversity conservation and environmental education.

Pickering GS has also been well recognized for its biodiversity conservation and educational efforts. Pickering GS won the international Corporate Habitat of the Year Award in 2001 and was distinguished again in 2007 by winning WHC's most coveted Corporate Habitat of the Year Award and WHC's Signatures of Sustainability Award. Both Pickering GS and Darlington GS have also

been certified for WHC's Corporate Lands for Learning program. This certification recognizes the use of site resources to meet local environmental education needs.

Nuclear generation's habitat conservation efforts are impressive. The efforts at Darlington GS include the development of a butterfly meadow, wildflower garden, pond and marsh management for amphibians, turtles and waterfowl, the installation of nest boxes for cavity nesting birds and significant native tree planting to help create a natural woodland corridor on site. Similarly, Pickering GS has created two wildflower gardens and is working to create a wildlife habitat corridor across the site to connect to nearby habitats. Considerable work has been undertaken in Hydro Marsh to control invasive carp and Purple Loosestrife, while providing nesting platforms for common terns, ospreys and black terns. In addition, a network of bird nest boxes has been installed across the site to attract cavity nesting birds.

Pickering GS and Darlington GS have an impressive record in working in partnership with local environmental groups, including the Toronto and Region Conservation Authority and Central Lake Ontario Conservation Authority. Their efforts not only include the enhancement and management of streams and



Fossil Generation's Contribution to Biodiversity

OPG has long been on the path to demonstrate that we can indeed co-exist with nature, which represents the fundamental intent of OPG's Biodiversity Policy. Accordingly, the fossil generation plants have been engaged in the inventory, protection and enhancement of appropriate habitats on their sites. These activities range from wetland management at Lennox GS and the protection of a provincially significant colony of Black Terns, to woodland habitat and tall grass prairie restoration at Lambton GS, to fisheries and waterfowl management at Atikokan GS, to an engineered wetland for waste water management which also doubles as important wetland habitat for wildlife at Nanticoke GS. In addition, all of the fossil generating plants have been pro-active in partnering with external organizations to further enhance habitat conservation efforts within their local communities. The fossil plants have earned a well deserved reputation as conservation leaders in their site communities.

nearby wetlands (e.g., Hydro Marsh and Frenchman's Bay at Pickering GS and Second Marsh near Darlington GS), but also greenway planning, providing wildlife habitat corridors which run through our sites to important regional habitats off site. OPG nuclear is a part of broader regional efforts to help protect and restore significant habitats, demonstrating the notion of acting locally but thinking regionally in terms of conservation needs and priorities. These efforts have helped to build a solid community license to operate by demonstrating that our sites can co-exist with nature.

Nuclear Waste Management Division's (NWMD) Contribution to Biodiversity

NWMD's Western Waste Management Site achieved certification from the Wildlife Habitat Council's Corporate Wildlife Habitat Certification/International Accreditation Program.

The protection and recovery of species at risk is a key priority for any biodiversity program. In that regard, NWMD is working with local conservation groups and Bruce Power GS to protect the sensitive natural areas

and associated species at risk that are in the proximity of OPG lands at the Bruce GS on Lake Huron. Their efforts are not only protecting significant natural areas but they are also building lasting relationships with their conservation partners.

Wildlife Habitat Council (WHC) Recognizes OPG's Commitment to Biodiversity

One of OPG's more notable biodiversity partnerships is with the U.S. Wildlife Habitat Council. The WHC is a not-for-profit, non-lobbying group of corporations, conservation organizations and individuals dedicated to assisting corporate landowners in the development of programs that protect, conserve and enhance wildlife habitat and biodiversity and foster environmental values. The WHC was established in 1988 with a mission to work with industry to make better use of their land holdings for wildlife and biodiversity needs. They act as an independent advisor and certifier of programs and work to build a company's image while contributing to wildlife habitat rehabilitation. WHC members include more than 100 corporations and two dozen conservation organizations. Member organizations of

The Wildlife Habitat Council have collectively enhanced more than 4.3 millions acres of habitat.

OPG (and its predecessor company, Ontario Hydro) has been a member of the Wildlife Habitat Council since 1996. It has been a relationship of mutual benefit. OPG has an excellent record of achievement through the WHC. That record saw a significant boost in 2007, when OPG was yet again the distinguished recipient of several coveted awards at the Wildlife Habitat Council's annual symposium which included:

- **International Conservation Award - Corporate Habitat of the Year Award** – This award recognizes outstanding environmental stewardship and voluntary employee efforts on sites that are currently certified with WHC. The Niagara Plant Group and Pickering GS were among the top four finalists out of 105 nominations for this award. Pickering GS came away with the coveted Corporate Habitat of the Year Award. This international award is recognized as the ultimate corporate environmental award offered by the Wildlife Habitat Council and the competition is intense among many proud companies. Pickering GS is distinguished as being a *two-time winner* of this award.
- **20th Anniversary Signatures of Sustainability Award** – The Signatures of Sustainability awards demonstrate the value of private sector involvement for biodiversity conservation and environmental education. Signature sites are chosen by a "Blue Ribbon Panel" who judge sites against a strict set of criteria. The Blue Ribbon Panel included the former Director of the U.S. Fish and Wildlife Service, the Chief Operating Officer of National Audubon Society and the Chief Executive Officer of the National Sand, Stone and Gravel Association. Darlington GS and Pickering GS were among 21 out of 432 certified sites that achieved this distinction.

These Awards can be added to a growing list of international awards and nominations that OPG has received from the Wildlife Habitat Council, including:

- 2005 – Darlington GS nominated for Corporate Habitat of the Year Award
- 2005 – Lennox GS nominated for Rookie of the Year Award
- 2004 – Pickering GS nominated for Corporate Habitat of the Year Award
- 2001 – Pickering GS wins Corporate Habitat of the Year Award, and
- 1997 – Darlington GS wins Rookie of the Year Award.

Wildlife Habitat Council Certified Sites

OPG currently has 11 sites certified by the WHC. Three new sites were successfully certified in 2007 by the WHC. Those sites include: Northeast Plant Group - Mattagami River; Ottawa-St. Lawrence Plant Group - Madawaska River; and Western Waste Management Site (Nuclear Waste Management Division). In addition, the following five sites were all successful in their applications for recertification: Atikokan GS, Lennox GS, Nanticoke GS, Niagara Plant Group and Pickering GS. Darlington GS, Lambton GS and Thunder Bay GS will be eligible for renewal in 2008.

All of these 11 sites have both protected and enhanced wildlife habitat on their properties, demonstrating their commitment to environmental stewardship and the conservation of native biodiversity.

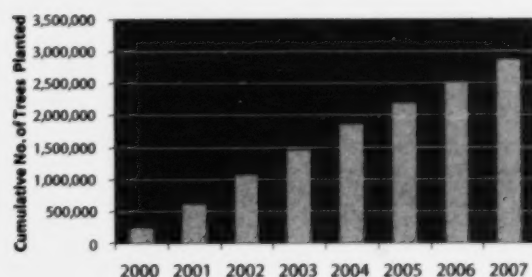
OPG's Carbon Sequestration and Biodiversity Management Program

OPG's efforts to conserve biodiversity and restore habitats extend well beyond our sites. Our carbon sequestration and biodiversity management program is an example of that effort. This unique tree planting program attempts to address two global issues that have great relevance to Ontario, namely global biodiversity losses and global climate change. More specifically, this program is linking the need to restore habitat for forest wildlife that are at risk in the highly fragmented landscapes of southern Ontario, with the need to sequester carbon as a mitigation offset to greenhouse gas emissions from our fossil fuelled plants. It is a biodiversity management program and it is also an adaptation management program to hedge against the adverse effects of climate change on southern Ontario's biodiversity.

The planting program purposely focuses on restoring forest habitat in southern Ontario (defined as the region south of the Canadian Shield), which has lost more than 80 per cent of its original forest cover. Habitat losses are most acute in the Carolinian biotic zone of southwestern Ontario, which is considered one of the most ecologically imperiled regions in all of Canada. There are more species at risk in this region than anywhere else in Canada. Protecting and restoring habitat is vital to the recovery of many of these species. It also represents important "insurance" to help prevent even more species from becoming at risk or regionally extirpated.

Since its introduction in the spring of 2000, OPG and its conservation partners have planted more than 2.8 million native trees and shrubs matched to site conditions, on more than 1,250 hectares of land (see Figure 9). These plantings have occurred in strategic locations to help "reconnect the fragmented landscape" that characterizes much of southern Ontario. The cumulative effort could potentially trap and offset up to 1,600,000 tonnes of CO₂ over the lifetime of those trees, helping to mitigate global warming. Approximately 348,000 trees were planted in 2007.

Figure 9: OPG Tree Planting (2000 – 2007)



More specifically, our plantings are targeted to expand key core forested areas and connect woodland patches to help promote the recovery of wildlife that are at risk in the heavily fragmented landscapes of southern Ontario. Sites are identified using regional scale natural heritage systems such as the Carolinian Canada Coalition's "Big Picture". The use of such systems helps us to achieve the greatest ecological and social value for our investment dollar.

Management plans have been developed for each site with explicit objectives linked to regional biodiversity conservation priorities. Sites are routinely monitored, survivorship assessments completed, and where necessary replacement plantings are undertaken to ensure long-term project success. Developing a system of habitat cores and corridors to increase habitat connectivity will help to conserve biodiversity across southern Ontario – this is why OPG is funding projects that will help make the big picture of conservation a reality on the landscape.

This restoration effort builds upon the collective work of several governmental and non-governmental organizations that have been working together to define an interconnected greenway system of habitats to protect and restore the biodiversity of southern Ontario. That

same greenway system of natural areas will also provide enhanced recreational opportunities for the communities living within the region, while also providing renewable resources and other important ecosystem services by reducing erosion, enhancing soil structure, recycling nutrients and enhancing both air and water quality. In short, OPG is part of an expanding effort to help protect and restore the forested ecosystems which once characterized much of the southern Ontario landscape.

In addition to the sequestering of greenhouse gases, the tree planting program is perhaps even more important as an adaptation strategy for reducing the adverse effects of climate change on southern Ontario's forest wildlife. An interconnected system of habitat cores and habitat corridors, facilitating the dispersal of plants and animals to more favourable habitats, is an important management strategy to help conserve biodiversity in the face of rapidly changing climatic regimes. Enhancing the size of core woodland habitats can also enhance their resiliency to increasingly severe and frequent stochastic events, such as drought, storm events and the spread of invasive species, all of which are linked to climate change. Small isolated habitats are particularly vulnerable to such effects. Whereas much remains to be done to enhance the integrity of southern Ontario's forest ecosystems, OPG is certainly doing its part to restore the rich biodiversity of the province.

Enhancing Toronto's Urban Forest

OPG is also working with the Toronto-based organization Local Enhancement and Appreciation of Forests (LEAF), which works with Toronto home owners to help enhance Toronto's urban forest. OPG is supporting LEAF's planting efforts and educational workshops. Their efforts have been well received by the public and it is helping to "green" the city. The benefits of planting urban trees are many and include the provision of shade and windbreaks to help reduce energy consumption for cooling and heating our homes. It also helps to improve our air quality by filtering pollutants, while reducing storm water run-off and providing urban wildlife habitat. The investment in urban forests is now seen as a critically important environmental initiative in most of our large urban communities.



Social Performance

OPG is committed to building quality relationships with our external stakeholders and employees. Most importantly, we strive to ensure that safety characterizes all aspects of our operations. We also believe that a good company gives back to its host communities, thus we support many charitable and not-for-profit initiatives in the communities where we operate.

Key Areas of Social Performance

OPG pursues excellence relative to a host of social performance initiatives. Key amongst those initiatives, particularly within the domain of sustainable development, are:

- Worker Safety
- Water Safety
- Employee Wellness
- Outreach and Recruitment
- Diversity and Employment Equity
- Code of Business Conduct
- Relations with First Nations, and
- Corporate Citizenry/Corporate Citizenship Program

OPG's commitment and performance, relative to each of these bulleted points, follows.

Worker Safety

OPG's ongoing commitment to safety excellence resulted in significantly improved safety performance in 2007 compared to 2006, with performance being the best in OPG's history. Many individual sites and businesses celebrated major safety performance milestones consisting of multiple years without a lost time injury. Notably:

- **OPG's 2007 All Injury Rate (AIR)** was 1.12 injuries per 200,000 hours worked, which was a 23 per cent improvement relative to the 2006 AIR performance of 1.30 injuries per 200,000 hours, and it was within the top quartile set by the Canadian Electricity Association.
- **OPG's 2007 Accident Severity Rate (ASR)** was 1.56 days lost per 200,000 hours worked, which was a 73 per cent improvement relative to the 2006 ASR of 5.87 days lost per 200,000 hours, and it was also within the top quartile set by the Canadian Electricity Association.

In November 2007, OPG was awarded the President's Silver Award from the Canadian Electricity Association (CEA) for consistent top quartile safety performance in 2005 and 2006 among Canadian utilities.

OPG has achieved this level of performance through the development of a safety culture where employees are expected to consistently build safety into every task they perform each day. This safety culture is founded on the implementation of targeted risk mitigation programs and the OHSAS 18001-based safety management systems. As a company committed to performance excellence, we strive for the ultimate goal of zero injuries.

OPG is committed to continuous improvement in its safety management and risk control programs, and in 2007 the company developed a five year strategic plan to achieve this goal. Under this plan, improvement programs were launched in several key areas:

- **Safety Leadership:** OPG believes that all employees are safety leaders. Initiatives to strengthen safety leadership among employees and enhance OPG's already robust safety culture were launched in 2007. These efforts included innovative communications that raise awareness of safety risks and encourage employees to make safe choices.

- **MDP Guideline:** Relative to risk reduction, OPG developed an OPG Musculoskeletal Disorder Prevention Guideline in partnership with our unions, to address a hazard area that has been an ongoing safety challenge. Implementation of this program is underway, continuing into 2008.

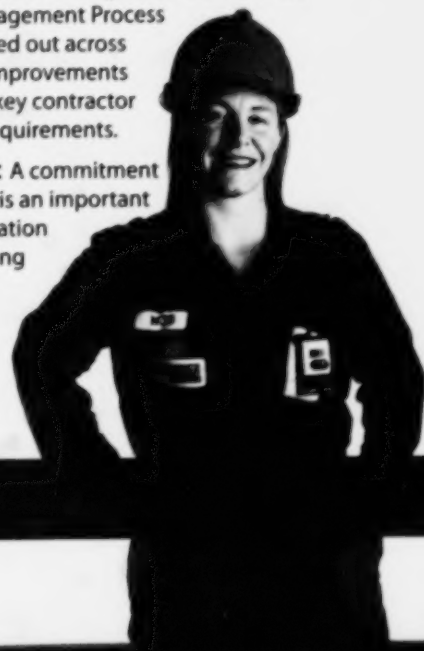
- **Corporate Safety Rules:** OPG launched the review of its Corporate Safety Rules in partnership with its unions with a view to raising the bar on controlling our risks and preventing injuries.

- **Pandemic Planning:** OPG completed the development of a Pandemic Influenza Plan for Corporate, along with detailed Business Continuity Plans at the Business level. OPG continued to work with external stakeholders to ensure that OPG will be prepared to assume its role in maintaining the province's electrical energy supply.

- **Young Worker Safety:** In 2007, OPG continued to demonstrate leadership in safety through our commitment to young worker safety, participating in initiatives to raise awareness on the importance of workplace safety. As part of this effort, OPG executives partnered with young worker safety advocate, Rob Ellis, to sponsor a simulcast for 20,000 students at 40 high schools across southern Ontario, and together with the Society of Energy professionals co-sponsored a young worker safety forum at the Industrial Accident Prevention Association Conference. The forum was attended by more than 3,000 young adults.

- **Contractor Management:** OPG continued to improve its Contractor Management Program in 2007 to ensure that contractors contribute to our strong safety culture. A major revision to OPG's Contractor Management Process Manual was rolled out across OPG detailing improvements to a number of key contractor management requirements.

- **Public Safety:** A commitment to Public Safety is an important part of the operation of OPG generating stations and is highlighted in OPG's Health and Safety Policy.



Water Safety

OPG's dams and hydroelectric stations are located throughout the Province of Ontario. In fact, in Ontario alone there are more than 240 dams and 64 hydroelectric generating stations on 25 river systems.

To help ensure public safety around all watercourses, OPG staff work closely with its partners in its site communities, and safety messages are broadly communicated to the public using radio advertisements, newspapers, magazines, brochures, videos and a computer game for children.

Beginning in 2003, and continuing through to 2007, public survey results show OPG's public awareness program is working, as the public shows increasing awareness of the need to remain a safe distance from hydroelectric dams and stations. The public continues to support OPG's efforts to upgrade and improve safety measures, which includes signage, booms and buoys around our hydroelectric facilities.



Employee Wellness

OPG helps to ensure that employee wellness is supported through several initiatives and programs, such as:

- on-site fitness/work-out facilities at many locations help employees to maintain physical and mental well-being
- family assistance programs provide a range of counselling and referral services to those in need
- disability management is addressed through early intervention and ongoing support during periods of illness
- on-site flu shot clinics, blood pressure and cholesterol screening, health fairs, and a variety of related programs, address employee illness prevention and health awareness
- physicians and nurses are available across many sites, and
- mental health well-being and reducing negative stereotypes associated with mental health challenges is an ongoing priority for OPG. Accordingly, employees have access to various information services, including a mental health video library, mental health workshops, stress sensitivity seminars and a mental health website.

Outreach and Recruitment

An expanded Graduate Recruitment Program in 2007 had OPG representatives participating in career fairs and information sessions at 13 universities across Ontario and Eastern Canada. At the same time, we broadened our Trades Recruitment at colleges across the province, doing outreach in both the winter and fall semesters. In a heightened effort to increase youth awareness of OPG as a prospective employer and to broaden the pool of candidates in the long term, we also continued to develop our relationships with high schools. Building on the interest in, and the success of, the Trade Up education program, we introduced a new interactive presentation for OPG employees to use when they act as ambassadors in schools.

OPG's co-op student program is a long-standing and highly successful component of our recruitment strategy. In 2007, we coordinated and supported the



Northwest Plant Group's 'Stay Clear, Stay Safe' exhibit to students and teachers

hiring and development of more than 500 students from universities and colleges across Canada. These students have brought their knowledge and fresh perspectives to a variety of OPG workplaces, based upon expertise in engineering, applied sciences, trades and technology, kinesiology, business and communications. As well as contributing to the day-to-day operations of our business, our co-op students were engaged in activities that centered on corporate citizenship and social responsibility. For example, the Student Charity Team organized a hugely successful children's book drive for Aboriginal children. Student volunteers at sites across the province collected more than 5,000 new and used children's books to support OPG's "Reading Is Cool" events at Moose Cree and Wabaseemoong First Nations, as well as for children in other remote Ontario First Nations communities.

In addition to the ongoing outreach and recruitment associated with universities and colleges, OPG actively sought out and participated in a wide range of community-based events and programs targeted at increasing the employment of designated groups under-represented in our workforce. We collaborated with some of these external groups and agencies on a range of projects aimed at increasing workforce diversity and inclusiveness.

In 2007, OPG began to actively profile our company's commitment to

sustainable development in 2008 recruitment materials. Increasingly so, young people view corporations that are environmental, social and economic stewards as desirable places to work. In response, OPG will profile its long-standing commitment to sustainable development in an effort to attract the best and brightest into its workforce.

Diversity and Employment Equity

A major review of OPG's Diversity and Human Rights governance was conducted in 2007, involving a wide range of stakeholders from across the organization. Corporate Human Resources coordinated this multi-layered project, engaging our unions in extensive planning and consultation. At the end of the year, a new policy was brought forward for Presidential approval (which received approval, January 2008). Further work on governance will continue in 2008.

We continue to communicate on diversity at different levels, and through different vehicles. We produced our annual Diversity calendar, linking the key message to our Award for being one of the Top 100 Employers in Canada. We also introduced a new internal newsletter, Diversity Dialogue, and continued to support our employee networks (Employees with Disabilities, the Native Circle, Women in Nuclear).



OPG's summer students and staff participate in the 'Reading Is Cool' initiative

OPG's commitment to Diversity is recognized in the broader community, and we are frequently requested to speak to various external groups, sharing insights on employment issues and strategies. In 2007, we participated in a new roundtable created by the Ontario government, which focused on employment for people with disabilities. We were also involved in the planning and coordination of Women in Leadership's Study on barriers and opportunities for Women in Engineering, and we are engaged in other initiatives aimed at eliminating barriers to the employment of internationally trained workers, particularly engineers.

The Corporation continued its annual involvement in the White Ribbon Campaign to end violence against women, with many sites making donations of money, furniture or clothing to women's shelters or community agencies across the province. Corporate Human Resources also promoted and ran its annual clothing drive at Head Office for Dress Your Best, a not-for-profit organization in Toronto that provides business clothing and assistance to under-privileged people seeking employment.

Code of Business Conduct

The Code of Business Conduct defines OPG's culture by establishing the standards, expectations and accountabilities for appropriate business behavior. It is based on commitment to integrity, excellence and citizenship. Within the Code there are key non-negotiable values:

- respect for each other and our stakeholders
- respect for the environment, and
- commitment to the safety and health of our employees, contractors and the communities in which we work, live and serve.

Compliance to the Code is expected of everyone and employee accountabilities are outlined in the Code. Each of OPG's Executive Committee members is accountable for monitoring Code compliance within their business and for submitting an Annual Due Diligence Report to the Chief Ethics Officer. Introduction to the Code of Business Conduct training is a requirement for new employees as part of their orientation. In addition, in 2007 Code of Business Conduct Continuing Training was completed by more than 11,000 employees and will be a requirement every two years.

Good Neighbours

At OPG, we provide information to the communities in which we operate through our community newsletter – Neighbours. The newsletter provides information on plant performance, environmental initiatives as well as educational and community projects supported by OPG. Neighbours is published and distributed on a regular basis in OPG's major site communities and is also available on our Web site at www.opg.com

Relationships with First Nations

OPG is committed to building long-term, mutually beneficial working relationships with aboriginal communities located in close proximity to OPG's facilities, including those which OPG now operates and future operations. This commitment is reflected in the recently adopted OPG Policy for Aboriginal Relations. We are working to develop lasting relationships with First Nations, built on a foundation of respect for their languages and customs, and the political, social and cultural institutions of aboriginal communities.

Some hydroelectric developments in the first half of the 20th century impacted the resources and way of life of First Nations communities. Indeed, unresolved historical grievances have been an obstacle in OPG's relationship with these First Nations. Accordingly, OPG will continue to seek mutually satisfactory resolutions to these grievances. In 2007, OPG and the Taykwa Tagamou Nation announced a past grievance settlement that will redress past wrongs and secure future development on the Abitibi River. A settlement was also reached with the Ochiichagwe/Babigo'Ining Ojibway Nation.

Also in 2007, OPG's Chairman, Jake Epp, joined the Lac Seul First Nation in ceremonies that recognized the past grievance settlement signed in 2006. As well as dedicating memorials in Ear Falls and at the Lac Seul First Nation, a formal apology was delivered by OPG. In the remarks that followed, both Chief Bull and the Chairman spoke of the need to look to a positive future relationship. Work to building that relationship remains ongoing.

Hydroelectric power provides virtually clean, renewable electricity. OPG has a mandate to develop its hydroelectric capacity and OPG is pursuing various prospective hydroelectric developments. As a consequence, we are currently in discussions with several First Nations regarding opportunities for their participation in hydroelectric development in Northern Ontario.

As part of OPG's efforts to reach out to Aboriginal communities, OPG is a sponsor of the Lieutenant Governor's Aboriginal Youth Reading Camps. Staff actively participated in camps at Wabaseemong First Nation and Moose Cree First Nation. OPG is also a sponsor of the Canadian Aboriginal Festival which is the largest indoor Aboriginal Festival in Canada.

Corporate Citizenship Program (CCP)

As a primary employer in many Ontario communities, OPG takes seriously its responsibility to be a good corporate citizen and neighbour. We believe that good corporate citizenship is directly based on operating our electricity generating facilities in a safe, environmentally sound, productive and reliable manner. We also believe that a good company gives back to the communities in which it operates, clearly making a difference in the quality of life in those communities. OPG helps make a difference by supporting a variety of charitable and non-profit initiatives in the communities where we operate.

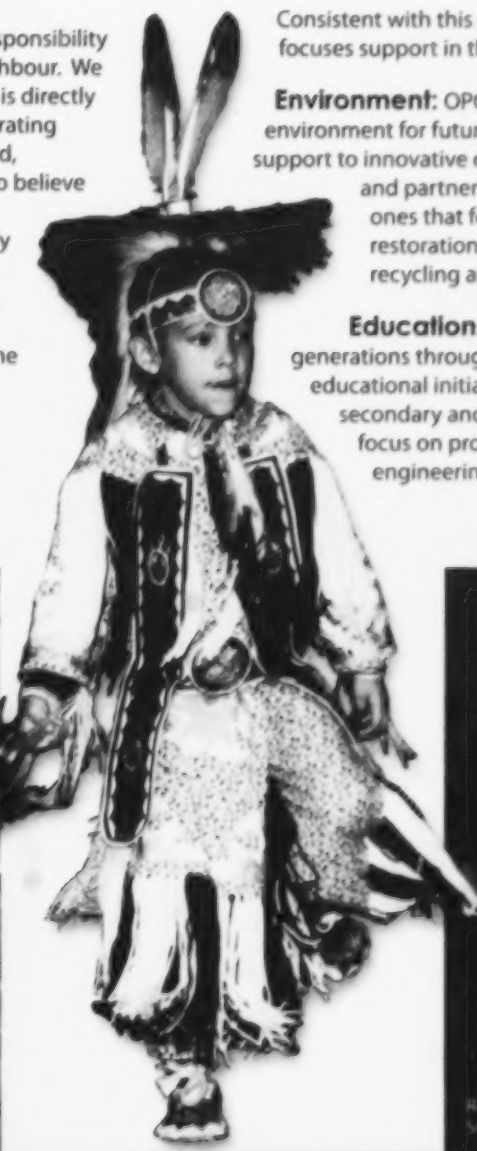
Under the CCP, OPG carefully considers proposals from registered charities and

non-profit organizations; these may include donation or sponsorship requests for financial and/or in-kind contributions, awards, scholarships and mentoring programs. Our CCP focuses support in the areas where OPG and our host communities have special interest. This includes initiatives that are innovative and are consistent with the company's commitment to be an engaged and productive member of the community. Ultimately this means minimizing our impact on the environment and ensuring that our contribution to the broader community is positive.

Consistent with this commitment, OPG's CCP focuses support in three primary areas:

Environment: OPG supports a healthier environment for future generations by providing support to innovative environmental initiatives and partnerships that look at solutions – ones that focus on wildlife and habitat restoration, naturalization, biodiversity, recycling and environmental education.

Education: OPG helps future generations through support of youth educational initiatives at the primary, secondary and post-secondary levels. We focus on projects that promote science, engineering, technology, business and



Top left: Taykwa Tagamou Nation and OPG redress the past and pave the way for the future
Bottom: National Chief of the Assembly of First Nations, Phil Fontaine (center) with OPG's Patricia Oakes and John Murphy at the Canadian Aboriginal Festival sponsored in part by OPG.

Recipients of the 2007 John Wesley Beaver Student Awards

the environment through educational programming, scholarships and awards, support of camps, competitions and conferences, as well as educational and mentoring programs.

Community Initiatives: OPG contributes to the quality of life in the communities in which the company operates. In addition to local environmental and educational initiatives, we support health and safety organizations, arts and cultural initiatives, humanitarian organizations such as the United Way, food banks, shelters, and local youth amateur sports initiatives.

In 2007, OPG's CCP provided support to over 900 registered charitable and non-profit organizations, with an emphasis on small grass roots contributions to initiatives in our host communities.

Key 2007 CCP initiatives supported by OPG include the following:

- **Youth Education:** Scholarships/student awards are a key component of OPG's educational funding. Awards help nurture young talent and the skill sets that businesses such as OPG will need in the future. Each year, OPG honours a select group of secondary and post secondary students. In 2007, OPG provided a total 245 student awards to recipients from across the province. Included in these awards were a number of First Nation student awards including OPG's John Wesley Beaver Memorial Award which fosters native entry in the post-secondary disciplines of engineering, technology, business and the environment at Ontario-based Universities and Colleges. The award is given annually to one male and one female First Nation recipient. The award is administered by Human Resources and OPG's Native Circle. The Native Circle provides a network for Native employees to support and mentor each other.

The recipients receive a bursary to put towards their education and a limited edition print by Native artist Rick Beaver (son of John Wesley Beaver).

- **Reading Is Cool:** In 2007, OPG's hydroelectric staff were given warm welcomes from the First Nation communities of Moose Cree (Northeastern Ontario) and Wabaseemoong (Northwestern Ontario) during "Reading is Cool" events held this past summer. The "Reading is Cool" events were an extension of OPG's support of the Lieutenant Governor James Bartleman's Aboriginal Youth 2007 Summer Reading Camp Program. The camp program helps build the English literacy skills of Aboriginal youth living in remote First Nations communities in Ontario. Literacy camps were held in 30 First Nation communities including Moose Cree and Wabaseemoong -- more than 2,400 young people participated in the camps. The curriculum for the camps was designed by Frontier College, a national, non-profit literacy organization founded in 1899 with a strong history of delivering successful literacy programs. The curriculum included reading and writing skill development and community specific content such as story-telling, music, arts and crafts. The OPG "Reading is Cool" camp events included reading, mentoring and a BBQ lunch cooked by OPG staff for campers and community members. After lunch the children received their OPG "Reading is Cool" backpacks containing a new aboriginal book and some other fun school items. The children were overjoyed -- wearing their backpacks proudly -- and very excited about the books and school supplies. OPG summer students also did their part by conducting a special book drive collecting over 5,000 books for the children of remote northern First Nation communities such as Moose Cree and Wabaseemoong.



Pickering and
Darlington Nuclear
sponsor educational
programs.

- **Amateur Sports:** OPG sponsors youth amateur sports teams in all our major plant site communities across Ontario. In 2007, OPG had over 250 youth amateur sports teams under sponsorship representing thousands of youth (under 18) in our host communities that are playing on OPG sponsored teams in hockey, baseball, lacrosse, basketball, soccer, ringette, ball hockey, as well as support to figure skating, gymnastics and swimming.

- **Health and Safety:** In 2007, 148 health and safety initiatives were supported across all of OPG's host communities. Many of these community safety initiatives focus on water safety in and around our hydroelectric facilities. In addition, in 2007, Lennox GS staff celebrated 5 years without a lost time injury. In recognition of this commitment to safety a contribution of \$2,000 was made to The Town of Napanee Fire Department to help enhance emergency equipment / response in the hamlet of Dorland.

- **Scientists in School:** In 2007, OPG's Niagara Plant Group announced its commitment as a Founding Partner of the Scientists in School (SIS) education program for students in Niagara Region. SIS presents fun interactive science-based workshops to students from Kindergarten to Grade 9 -- workshops such as Get Energized with Wind and Water, Energy Makes it Happen! and What in the World is Matter?, help to inspire young people to take an interest in science, engineering and technology. By 2008, SIS expects to reach 4,000 elementary students in Niagara Region with their interactive half-day workshops led by qualified presenters, scientists and technical experts. SIS reach close to half-a-million students a year in Ontario. As an engineering, science and technology based company, support for SIS educational programming

was a natural fit as we look to increase the pool of young people pursuing careers in these fields.

- **Food Banks/Soup Kitchens:** OPG's CCP provided support to more than 35 Food Banks/Soup Kitchens in 2007, in an effort to help fight hunger in our host communities. Support was provided to organizations like the St. Andrew's Dew Drop Inn in Thunder Bay which has been feeding up to 130 hungry people daily for the past 26 years. In addition, employee volunteers from Thunder Bay GS rolled their sleeves up and helped out in the kitchen of the St. Andrews Dew Drop Inn. Thanks go out to all the individuals at the Dew Drop Inn and to all the Food Banks/Soup Kitchens in our host communities who make these much needed services available and to our employee volunteers for their community commitment.

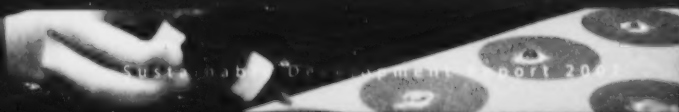
- **Environmental Earth Angels:** Through support from OPG's Darlington GS and Pickering GS, in 2007 Environmental Earth Angels (EEA) began connecting youth to the environment, both physically and virtually through their innovative Virtual Biodiversity Education Program. The program involved the creation of a Virtual Biodiversity Website and Biodiversity Field Trips for students. OPG's properties are tremendous theatres for environmental study and students connected hands-on to a variety of ecosystems (i.e. wetland, forest and meadow) at OPG's Darlington GS Waterfront Trail and at Alex Robertson Park, part of the OPG Pickering GS wildlife corridor. EEA Virtual Biodiversity programming will continue in 2008 - 2009 at OPG's Darlington GS and Pickering GS properties with expansion planned in 2009 to North Bay and OPG's Evergreen Energy properties.

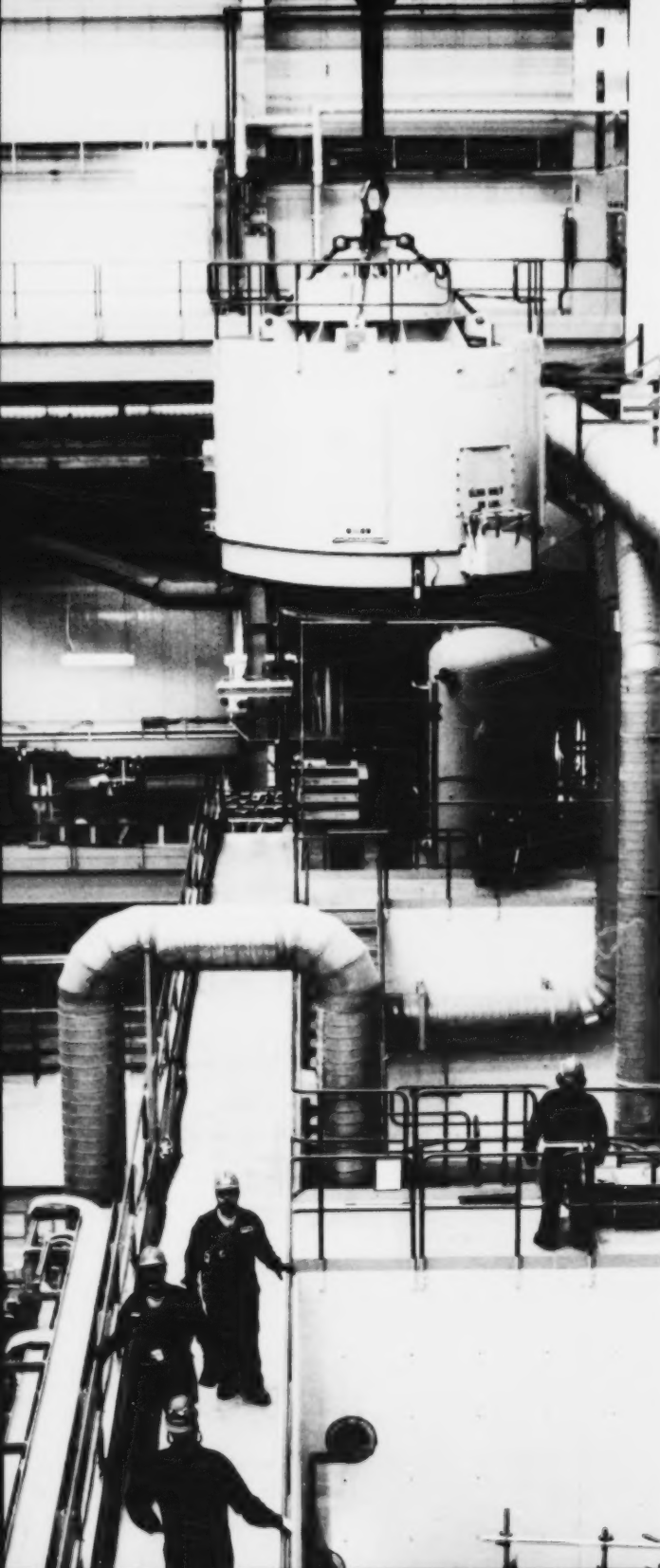


Scientists in School program in Niagara



Food Bank at St Andrews Dew Drop Inn





Economic Performance

In reference to the economic dimension of sustainable development, OPG creates value for the government and residents of Ontario that complements our commitment to ensure a reliable supply of electricity.

Key Areas of Economic Performance

OPG strives to bring value to Ontario, the communities in which we operate, and to its employees, through a variety of responsible "best business" practices. Accordingly, key areas of focus for OPG, particularly in reference to sustainable development, include:

- Financial Strength
- Asset Improvement
- Nuclear Refurbishment and New Build Nuclear
- New Hydro and Combined Cycle Gas Supply Initiatives
- Employee Compensation and Provincial Payments
- Purchase of Goods and Services, and
- OPG Ventures

OPG's commitment and performance, relative to each of these bulleted points, follows.

OPG's Financial Strength Benefits Ontario

Financial Performance: OPG's net income in 2007 was \$528 million compared to \$490 million earned in 2006. Increases in nuclear funds earnings, in non-electricity generation revenue and in fossil generation, were among the factors that contributed favourably to OPG's higher earnings. Earnings were negatively affected by lower production from the Pickering A and B nuclear stations and by higher maintenance costs at our nuclear and fossil businesses.

Cost Control: To control costs, OPG undertook a major review of its support function activities in 2007. Approximately 1,400 cost savings opportunities were identified, many of which were built into OPG's 2008 business plan. This initiative is ultimately expected to provide about \$45 million in savings to OPG.

Rate Application: The rates OPG receives from its regulated (i.e., nuclear and baseload hydroelectric) generating stations have not increased in three years (as per 2007). These stations account for 60 per cent of OPG's generation.

In 2007, OPG filed a rate application with the Ontario Energy Board seeking a rate increase of 14 per cent for its regulated stations. If approved, the increase would add about \$2.90 a month to the electricity bill of an average household.

The additional revenue from a rate increase would enable OPG to continue to improve the performance of its regulated assets. It would also allow OPG to undertake new generation projects that will provide Ontarians with much needed power required to support future economic growth. Both outcomes ultimately benefit the Province and the people of Ontario.

Price Mitigation: OPG receives a price for its electricity that is set below Ontario's market prices. This holds down the overall price of power in the province. In 2007, OPG received an average price of 4.6 cents/kWh from the electricity produced by all of its generating stations. In contrast, the average Ontario electricity market price was 5.1 cents/kWh.

Asset Improvement

OPG keeps its assets strong to ensure reliable performance. Planned outages are an important means to achieve this goal.

Nuclear Planned Outages: In 2007, OPG conducted five major planned outages on nuclear units at the Darlington GS and Pickering GS stations. Completing planned outages in a timely and efficient manner is a priority for OPG. Darlington GS achieved this goal in 2007, while the older Pickering GS experienced challenges in this area:

- Darlington Unit 4: March 8 – May 5. Ahead of schedule
- Pickering B Unit 5: April 2 – July 5. Behind schedule
- Pickering B Unit 6: September 10 – November 27. Behind schedule
- Darlington Unit 2: September 21 – November 19. Ahead of schedule, and
- Pickering A Unit 1: October 12 – January 3, 2008. Behind schedule.

In all of these outages, important work in inspection, maintenance and equipment improvement was undertaken and successfully completed. As OPG continues to make progress in its nuclear asset improvement program, it is shifting from maintenance initiatives designed to improve the condition of equipment, to initiatives that increase generation reliability and performance predictability.

Hydroelectric Improvements: With an average age of 73 years, OPG's hydroelectric stations are among the oldest and most reliable assets in the company's generating portfolio. They are also clean assets, producing virtually no air emissions that contribute to smog or climate change.

In 2007, OPG completed 22 major planned outages at its hydro stations. These and other improvement initiatives will strengthen the performance and reliability of these valuable assets. Major improvements included:

- Completion of major rehabilitations of hydro units at Abitibi Canyon, Chats Falls, Caribou Falls, Des Joachims, DeCew Falls, and Ranney Falls

- Completion of a new Control Centre at the Beck 1 station near Niagara Falls, and
- Turbine-runner upgrades that added 12 MW to OPG's hydroelectric capacity.

Over the next five years, OPG plans further hydroelectric improvements that will add another 53 MW of capacity – for a total of 490 MW added through upgrades and improvements since 1992.

Fossil: While OPG is aware that it must phase out its coal-fired stations by 2014, it is committed to operating all its fossil stations in a productive, efficient and environmentally responsible manner for as long as they are needed by Ontario. To help meet this commitment, OPG undertook 20 planned outages in 2007, including major outages on units at its Atikokan, Lambton, Lennox, Thunder Bay and Nanticoke coal-fired stations.

Outage work at Lambton GS and Lennox GS focused on improving the reliability and performance of several units. The Nanticoke GS Unit 1 outage resulted in important inspection and maintenance work performed on its boilers and turbines. The Nanticoke GS outage involved more than 140,000 hours of trades work. Outage work at Atikokan GS included replacement of a turbine blade and a primary air heater. Additionally, new unit controls were installed on Unit 3 at the Thunder Bay GS.

Nuclear Refurbishment and New Build Nuclear

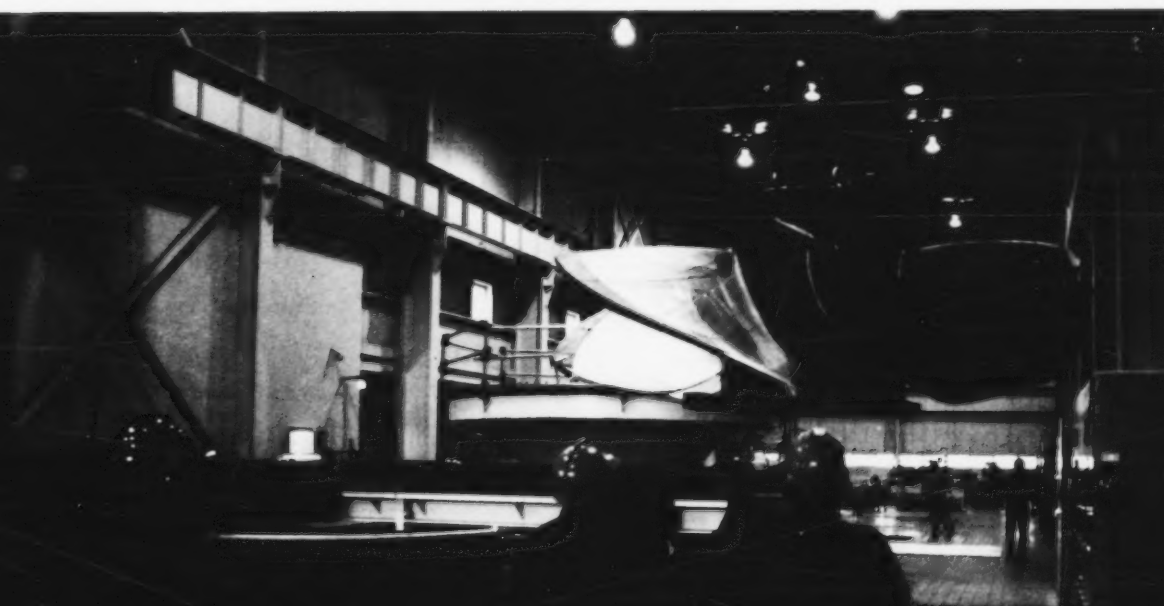
Ontario needs to refurbish and/or replace 10,000 MW of nuclear energy. OPG is rising to the occasion.

Pickering B Refurbishment: Throughout 2007, OPG studied the feasibility of refurbishing the Pickering B GS.

Complex and comprehensive, the feasibility study consists of a plant condition assessment, an Environmental Assessment (EA), and an Integrated Safety Review (ISR). Public consultations must also be undertaken.

In 2008, OPG submitted its finalized EA study report on refurbishment to the Canadian Nuclear Safety Commission (CNSC). The assessment found that no significant residual adverse environmental effects would occur from refurbishment. The next phase of the process moves to the CNSC and includes preparation of an EA screening report; a public review, and CNSC hearings.

Darlington Refurbishment: As determined by OPG in 2007, in 2008 OPG will begin work to assess the potential refurbishment of the Darlington GS. The assessment will determine how much work will be required to refurbish the plant as well cost and scheduling. A federal EA will be required.



The refurbishments of Pickering B GS and Darlington GS will only take place if there is a solid business case to justify these large and complex projects.

Nuclear New Build: In 2007, OPG continued work to consider the potential for building new nuclear reactors at Darlington GS – potentially one of the most significant and exciting projects in OPG's history. This work included developing support initiatives for an EA and the submission of a Project Description in April to the CNSC.

The CNSC announced that an EA would begin, and in 2008 it recommended to the Federal Minister of Environment that the project be referred to a review panel -- the highest level of review under current legislation. The Minister's decision on the CNSC's recommendation is pending.

Meanwhile, planning and preparation for the new nuclear units at the Darlington GS continues.

In partnership with Bruce Power, OPG concluded a study that provides the Ontario government with a generator's view on the best available reactor technologies. Infrastructure Ontario is the Provincial agency that will lead the competitive commercial process for nuclear new build in Ontario, and OPG has been asked to participate in the process.

OPG also continued its efforts to inform the public about the proposed new nuclear units – including the completion of a second series of community consultations in the Durham region in the Fall of 2007.

New Hydro and Combined Cycle Gas Supply Initiatives

OPG has three new generation projects under construction. Two have had challenges, but continue to make progress, while the third was completed ahead of schedule.

Niagara Tunnel: Running under the city of Niagara Falls, the 10.4 km Niagara Tunnel will enable OPG's Beck GS to generate enough additional electricity to power 160,000 homes.

By year end, work on the tunnel had progressed about 1.6 kilometres (one-tenth of the distance). Fractured rock conditions continued to slow the boring machine as it moved through the St. David's Gorge. Schedule uncertainty will remain until the boring machine moves well beyond this area -- to approximately the 2.3 kilometre mark. While the tunnel was originally expected to be completed by mid-June, 2010, indications now suggest that completion will be delayed.



Lac Seul: The 12.5 MW Lac Seul generating station in Northwest Ontario experienced delays in the second half of 2007. On two occasions major subcontractors had to be replaced, impacting construction. These issues have been addressed, but the station is now expected to be finished by the latter half of 2008 – compared to an originally planned in-service date of late 2007.

The Niagara Tunnel and Lac Seul projects both employ design-build contracts which reduce risk for OPG by making the project contractor responsible for mitigating schedule delays.

Portlands Energy Centre: The 550 MW gas-fired Portlands Energy Centre, Toronto, is ahead of schedule and on budget, with all major milestones complete. It will operate in simple-cycle mode in 2008 – in time to be available as needed for the higher-demand, summer months. Portlands is expected to be fully operational in combined cycle mode by the second quarter of 2009.

Other Hydro Projects: OPG also has a number of other proposed hydroelectric projects in various stages of development. These include a major expansion project on the Lower Mattagami River, representing 450 MW of new hydro capacity, and smaller potential projects on the following rivers: Upper Mattagami, Abitibi, Montreal and Little Jackfish. Important developments occurred in December 2007 to help move these projects forward.

- OPG's Board approved re-development of four hydro stations on the Upper Mattagami River
- Work began on expanding OPG's Healey Falls hydro station near Campbellford, Ontario, and
- The Ontario Ministry of Energy directed the Ontario Power Authority to negotiate Energy Supply Agreements on OPG's hydro projects at Lac Seul, the Lower and Upper Mattagami River, Healey Falls, and Hound Chute. This important decision will greatly facilitate progress on these projects while providing more revenue certainty to OPG.

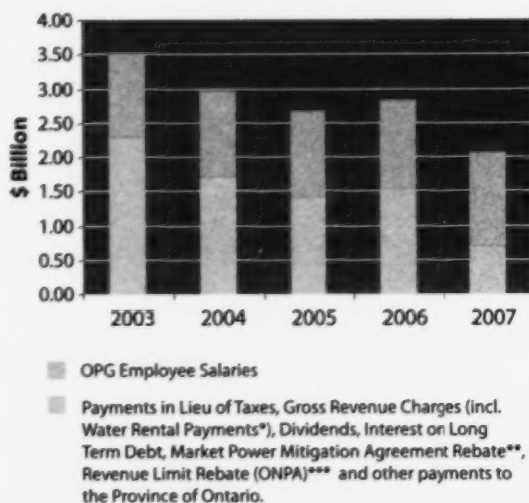
Lakeview Site: OPG's Lakeview coal-fired station was shut down in 2005 and its powerhouse was demolished in 2007. The site remains an important asset in Ontario's electricity system, with the intention to be the location for a gas-fuelled generating station.

Employee Compensation and Provincial Payments

In ongoing efforts to attract and retain a highly qualified workforce, OPG offers employees competitive compensation. In 2007, compensation to OPG employees totaled approximately \$1.38 billion (see Figure 10). Recognizing that most OPG employees live in Ontario and purchase their goods and services locally, this compensation directs a substantial transfer of wealth back to the province.

OPG creates additional benefit for the provincial economy through payments made in lieu of taxes, gross revenue charges, dividends, interest on long term debt, Market Power Mitigation Agreement Rebates, Revenue Limit Rebate (ONPA) and other payments to the Province of Ontario (see notes, Figure 10). In 2007, these payments totaled nearly \$0.69 billion.

Figure 10: OPG Salaries and Payments Made to the Province of Ontario



* This amount only includes water rentals charged under the Gross Revenue Charge (GRC) regime. Therefore, it does not include amounts charged for non-provincial water rentals.

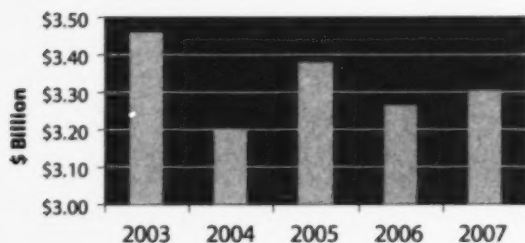
** Replaced by ONPA (Revenue Limit Rebate) effective April 1, 2005.

*** ONPA - OPG Non-Prescribed Asset Rebate, now referred to as the OPG Rebate, effective April 1, 2005.

Purchase of Goods and Services

OPG provides support to the Province of Ontario through the purchase of goods and services. In 2007, the total purchase of goods and services in Ontario by OPG totaled \$3.3 billion (see Figure 11).

Figure 11: Total Purchase of Goods and Services by OPG within Ontario*



*2003-2006 figures restated from SD Report 2006.

OPG Ventures Inc.

Through its wholly owned corporate venture capital group, OPG Ventures Inc. (OPGV), OPG continues to manage a portfolio of investments in enterprises developing and commercializing leading-edge energy technologies. OPGV was established to invest in private companies developing or commercializing emerging energy technologies for the purposes of yielding financial returns and strategic benefits for OPG.

Since it was established in 2001, OPG Ventures has invested directly and indirectly in small private companies developing technologies that generate, transmit, store, transact or utilize electricity more efficiently, more cost effectively and in cases with reduced environmental impact. As of the end of 2007, the fair value of the entire investment portfolio was about \$45 million.

Given OPG's current mandate to focus on its core generation business, OPG Ventures has scaled back its investment activities to meeting existing commitments and making selective follow-on investments with a view to monetizing the investment portfolio in a manner that optimizes the return to OPG.

Stakeholder Feedback

To assist OPG in improving sustainable development performance, please submit any comments/suggestions you may have to Cara Clairman, Vice President Sustainable Development, at the coordinates provided on the back cover of this report.

Nanticoke Unit 6 Outage work

APPENDIX A

Nuclear

General Information

Pickering A & B GS

Generation capacity:

Pickering A: 1,030 MW net

Pickering B: 2,064 MW net

Located on Lake Ontario in the city of Pickering, each generating station has 4 units. Two of the 515 MW Pickering A units taken out of service during the nuclear recovery program will not be refurbished.

Number of used fuel bundles stored on site: 602,916

Tel: (905) 839-1151

Generation (net GWh)

Critical Group Dose (µSv)

2007	2006	2005	2004	2003	2007	2006	2005	2004	2003
16,855	19,801	17,297	15,672	12,770	2.6	3.6	6.8	4.1	4.7

Darlington GS

Generation capacity:

3,512 MW net

Located on Lake Ontario in the town of Newcastle, 70 km east of Toronto. This generating station has 4 units.

Number of used fuel bundles stored on site: 347,733

Tel: (905) 623-6670

Generation (net GWh)

Critical Group Dose (µSv)

2007	2006	2005	2004	2003	2007	2006	2005	2004	2003
27,155	26,968	27,491	26,486	24,810	1.4	1.4	0.9	1.2	1.1

- Ontario Power Generation for the years ended December 31
- Totals may not add up due to rounding

Fossil

General Information

Net Generation and Emissions*

Atikokan GS

Generation capacity:
215 MW net

Located west of Thunder Bay, the station has 1 coal-fired unit equipped with low-NO_x burners.

Generation (net GWh)					Emissions (tonnes)					
2007	2006	2005	2004	2003		2007	2006	2005	2004	2003
651	737	965	1,018	946	SO ₂	2,999	3,304	4,774	6,430	6,446
					NO _x	1,192	1,435	1,701	2,240	1,862
					CO ₂	751,422	849,400	1,104,000	1,177,200	996,000

Lambton GS

Generation capacity:
1,975 MW net

Located on the St. Clair River south of Sarnia, the station has 4 coal-fired units, 2 of which are equipped with SO₂ scrubbers and selective catalytic reduction (SCR) equipment to reduce NO_x emissions.

Generation (net GWh)					Emissions (tonnes)					
2007	2006	2005	2004	2003		2007	2006	2005	2004	2003
8,855	6,856	9,422	7,672	10,636	SO ₂	30,796	17,227	29,343	25,907	36,877
					NO _x	9,205	6,179	8,804	8,100	10,938
					CO ₂	8,458,685	6,451,000	8,692,000	7,169,900	9,499,000

Lennox GS

Generation capacity:
2,140 MW net

Located on Lake Ontario in the town of Greater Napanee. The station has 4 oil and/or natural gas-fired units.

Generation (net GWh)					Emissions (tonnes)					
2007	2006	2005	2004	2003		2007	2006	2005	2004	2003
789	317	1,263	602	2,775	SO ₂	899	623	2,503	2,449	4,060
					NO _x	936	420	1,554	1,016	2,970
					CO ₂	582,929	281,720	953,530	613,000	1,954,900

Nanticoke GS

Generation capacity:
3,948 MW net

Located on Lake Erie, the station has 8 coal-fired units fitted with low-NO_x burners, 2 of which are equipped with selective catalytic reduction (SCR) equipment to reduce NO_x emissions.

Generation (net GWh)					Emissions (tonnes)					
2007	2006	2005	2004	2003		2007	2006	2005	2004	2003
18,083	16,174	17,666	14,466	20,393	SO ₂	67,423	61,958	67,946	61,256	83,969
					NO _x	22,376	20,048	22,942	21,065	35,268
					CO ₂	17,867,783	16,222,800	17,580,000	14,671,800	19,737,000

Thunder Bay GS

Generation capacity:
310 MW net

Located in Thunder Bay, this station has 2 coal-fired units.

Generation (net GWh)					Emissions (tonnes)					
2007	2006	2005	2004	2003		2007	2006	2005	2004	2003
590	959	962	965	1,474	SO ₂	2,530	4,163	4,215	5,035	8,885
					NO _x	1,550	2,701	2,632	2,498	3,017
					CO ₂	705,654	1,127,620	1,149,600	1,126,000	1,581,000

* NO_x is reported as NO₂.

Hydroelectric

Niagara Plant Group

Generation Capacity: 2,287 MW

Includes 5 stations, Head Quarters (HQ) in Niagara area

Generation (net GWh)

2007	2006	2005	2004	2003
11,530	11,538	12,526	12,597	11,944

Ottawa/St. Lawrence Plant Group

Generation Capacity: 2,571 MW

Includes 10 stations, HQ in Renfrew

Generation (net GWh)

2007	2006	2005	2004	2003
11,484	13,133	11,869	13,002	11,935

Northeast Plant Group

Generation Capacity: 1,294 MW

Includes 13 stations, HQ in Timmins

Generation (net GWh)

2007	2006	2005	2004	2003
4,562	4,552	4,109	5,320	5,515

Northwest Plant Group

Generation Capacity: 661 MW

Includes 10 stations, HQ in Thunder Bay

Generation (net GWh)

2007	2006	2005	2004	2003
3,865	3,355	4,426	4,852	2,982

Evergreen Energy Evergreen Energy EcoLogo[®]-certified

Generation Capacity: 147 MW

HQ in North Bay

Generation (net GWh)

2007	2006	2005	2004	2003
------	------	------	------	------

EcoLogo[®]-certified Green Power generation capacity from 32 OPG stations (29 small hydro stations including 4 NEPG stations), 2 wind turbines, and 50% of Huron Wind (5 wind turbines, partnership with a consortium of Canadian companies): 134 MW (at Dec 31, 2005)

620	742	623	709	716
-----	-----	-----	-----	-----

EcoLogo[®]-certified Green Power capacity available from Power Purchase Agreements: 12 MW (to April 2007)

12	50	37	47	41
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Total available EcoLogo[®]-certified Green Power capacity: 134 MW

632	792	660	756	757
-----	-----	-----	-----	-----

Other Evergreen Energy capacity

Generation (net GWh)

Other Evergreen Energy capacity (non-EcoLogo: Eugenia Falls hydroelectric station: 6.1 MW; New York Wind Farm: 6.6 MW)

38	33	41	38	32
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APPENDIX B

Indicator					
ENERGY GENERATION BY SOURCES (gross GWh)					
	2007	2006	2005	2004	2003
Fossil	30,741	26,756	32,816	28,921	41,235
Hydroelectric (Renewable - excl. Evergreen Energy)	31,754	32,977	32,418	35,384	32,097
Nuclear	47,003	49,763	47,810	45,051	40,353
Evergreen Energy (includes 4 N.E. Plant Group stations)	669	825	701	795	788
Total Internal Energy Generated	110,168	110,322	113,746	110,150	114,473
ENERGY GENERATION BY SOURCE (net GWh)					
	2007	2006	2005	2004	2003
Fossil	28,969	25,042	30,938	27,020	39,030
Hydroelectric (Renewable - excl. Evergreen Energy)	31,339	32,475	31,912	35,017	31,677
Nuclear	44,010	46,769	45,005	42,158	37,700
Evergreen Energy (incl. 4 NE Plant Group stations, wind, power purchases)	670	825	701	795	788
Total Internal Energy Output (incl. power purchases)	104,987	105,098	108,543	104,974	109,181
ENERGY CONVERSION EFFICIENCY OF FOSSIL GENERATING STATIONS					
	2007	2006	2005	2004	2003
Total Energy Input (GWh equiv.)	86,337	75,760	92,986	82,823	118,215
Net Energy Output (GWh)	28,969	25,042	30,938	27,020	39,030
Fuel Conversion Efficiency (%)	33.6%	33.1%	33.3%	32.6%	33.0%
OPG INTERNAL ENERGY EFFICIENCY					
	2007	2006	2005	2004	2003
Gross Generation (GWh)	110,168	110,308	113,732	110,135	114,459
Net Generation (GWh)	104,987	105,098	108,543	104,974	109,181
Generation Energy Efficiency (%)	95.30%	95.28%	95.44%	95.31%	95.39%
Internal Energy Saving - Cumulative since 1994 (GWh/yr)	2,373	2,221	2,111	2,054	1,947
Avoided CO ₂ , NO _x (as NO ₂) and SO ₂ (tonnes)	2,334,869	2,167,777	2,071,357	2,070,215	1,831,128
\$ Value of Energy Savings @ market clearing rate (2007 = 4.6¢/kwh; 2006 = 4.63¢/kwh; 2005 = 4.6¢/kwh; 2003-2004 = 4.3¢/kwh)	\$109,145,198	\$102,834,231	\$97,123,940	\$88,318,130	\$83,699,500
Annual Incremental Energy Saving (% of internal energy use)	2.9%	1.1%	1.1%	2.1%	6.4%
Annual Incremental Energy Saving (GWh/yr)	151.7	109.7	57.5	107.4	339.8

Indicator					
ATMOSPHERIC EMISSIONS - FOSSIL					
	2007	2006	2005	2004	2003
Total Gross Annual CO ₂ Emissions (tonnes)	28,366,473	24,932,840	30,198,130	27,077,400	36,498,700
Total Gross Annual SO ₂ Emissions (tonnes)	104,647	87,275	113,642	116,913	157,809
Total Gross Annual NO _x Emissions (tonnes, as NO ₂)	35,261	30,783	39,043	39,847	59,678
EMISSION RATES - FOSSIL					
	2007	2006	2005	2004	2003
CO ₂ Emissions (tonnes/GWh-net)	979	996	976	1002	935
SO ₂ Emissions (tonnes/GWh-net)	3.61	3.49	3.67	4.33	4.04
NO _x Emissions (tonnes/GWh-net, as NO ₂)	1.22	1.23	1.26	1.47	1.53
ATMOSPHERIC EMISSIONS - NUCLEAR					
	2007	2006	2005	2004	2003
Total Gross Annual CO ₂ Emissions (tonnes)	15,428	6,271	11,459	7,247	15,961
Total Gross Annual SO ₂ Emissions (tonnes)	3	1	2	20	3
Total Gross Annual NO _x Emissions (tonnes, as NO ₂)	85	23	64	144	125
ATMOSPHERIC EMISSIONS - OPG					
	2007	2006	2005	2004	2003
Total Gross Annual CO ₂ Emissions (tonnes)	28,381,901	24,939,111	30,210,459	27,084,647	36,514,661
Total Gross Annual SO ₂ Emissions (tonnes)	104,650	87,276	113,645	116,933	157,812
Total Gross Annual NO _x Emissions (tonnes, as NO ₂)	35,346	30,806	39,107	39,991	59,803
EMISSION RATES - TOTAL OPG					
	2007	2006	2005	2004	2003
CO ₂ Emissions (tonnes/GWh-net)	270	237	278	258	334
SO ₂ Emissions (tonnes/GWh-net)	1.00	0.83	1.05	1.11	1.45
NO _x Emissions (tonnes/GWh-net, as NO ₂)	0.34	0.29	0.36	0.38	0.55
NUMBER OF REPORTABLE SPILLS					
	2007	2006	2005	2004	2003
Category A Spills	0	0	0	0	0
Category B Spills	2	0	0	1	3
Category C Spills	6	14	17	14	18
Category D Spills (reportable effective July 1, 2005)	22	29	12	NR	NR

NR = not reported in given year

Indicator					
PCB MANAGEMENT (tonnes)	2007	2006	2005	2004	2003
High Level PCB material in storage	7	3	1	2	2
High Level PCB materials sent for destruction	18	326	97	135	99
Estimated inventory of High-Level PCB material in service*	42	56	411	449	608
Low-Level PCB materials in storage	3	2	2	0.4	6
Low-Level PCB material sent for destruction	25	6	74.2	38	9
Estimated inventory of Low-Level PCB material in service	5	3	2.6	4.4	4.3
Total Year-End Inventory (waste in storage + in-service equipment)	50	65	417	456	620
Total PCB material sent for destruction	43	332	171	172	109

*Excludes in-service high-level PCB equipment at Bruce Power included in previous SD Report inventories

RADIOACTIVE WASTE MANAGEMENT	2007	2006	2005	2004	2003
Used fuel - annual production (tonnes of uranium)	1,326	1,409	1,290	1,216	1,022
Used fuel in Storage (tonnes of uranium)	33,713	32,302	30,862	29,667	28,451
Low and Intermediate Radioactive Waste produced (m ³)	3,043	3,455	5,695	4,651	4,059
Low and Intermediate Radioactive Waste stored (m ³)	3,530	2,538	2,577	1,979	3,481

UTILIZATION OF SOLID COMBUSTION BY PRODUCTS	2007	2006	2005	2004	2003
Total Ash and Gypsum Produced (tonnes)	1,183,383	1,117,023	1,286,980	1,175,109	1,468,310
Total Ash and Gypsum Recycled (tonnes)	760,057	746,270	801,913	865,624	824,398
Diversion Rate (%)	64%	67%	62%	74%	56%

HAZARDOUS WASTE GENERATION	2007	2006	2005	2004	2003
Solids (tonnes)	338	165	348	645	220
Liquids (kilolitres)	2,430	2,146	1,567	2,313	4,488

WATER USE (million m ³)	2007	2006	2005	2004	2003
Turbine flows - hydroelectric stations (total flow)	424,623	450,579	440,574	486,901	420,206
Cooling and service water use (non-consumptive)	13,702	13,264	14,192	13,716	13,473

National Pollution Release Inventory (NPRI)

NPRI Emissions: air, water and land ⁽⁴⁾ (tonnes unless otherwise specified)	2006 ⁽¹⁾	2005	2004	2003	2002
Aluminum	307.932	343.950	286.18	NR ⁽²⁾	NR ⁽²⁾
Ammonia	27.554	29.447	28.34	34.21	22.37
Arsenic	15.625	22.638	12.41	25.27	25.15
Benzo(a)anthracene	0.000	0.000	0.014	15	0.006
Benzo(a)phenanthrene	0.000	0.000	0.041	0	0.000
Benzo(a)pyrene	0.000	0.000	0.006	0.008	0.003
Benzo(b)fluoranthene	0.000	0.000	0.005	0.005	0.003
Benzo(e)pyrene	0.000	0.000	0.011	0.019	0.005
Benzo(g,h,i)perylene	0.000	0.000	0.010	0.011	0.003
Benzo(j)fluoranthene	0.000	0.000	0.000	0.003	0.000
Benzo(k)fluoranthene	0.000	0.000	0.000	0.0 kg	0.0 kg
Cadmium	400 kg	341 kg	315 kg	10.2 kg	NR ⁽²⁾
Chromium	46.308	67.601	43.90	84.42	121.98
Cobalt	7.81	10.135	2.13	25.55	29.07
Copper	62.3	73.245	45.16	89.99	100.2
Dibenz(a,h)anthracene	0.000	0.000	0.002	0	0
Dibenz(a,j)acridine	0.000	0.000	0.005	0	0.001
Dibenzo(a,i)pyrene	0	0	0	0	0
Dioxins & Furans	3.1	0.004	0.003	0	0
7H-Dibenzo(c,g)carbazole	1.042 g TEQ ⁽³⁾	1.642 g TEQ ⁽³⁾	3.13 g TEQ ⁽³⁾	1.31 g TEQ ⁽³⁾	1.49 g TEQ ⁽³⁾
Fluoranthene	1.200	1.547	0.010	0.018	0.008
HCFC-22	0	0	0	0	0.81
Hexachlorobenzene	0.103 grams	6.86 grams	197.20 grams	33.39 grams	3.92 grams
Hydrazine	0.881	1.039	0.942	0.98	0.85
Hydrochloric Acid	2,308	2845.693	5037.46	4871.07	9231.04
Hydrogen Fluoride	308	345.7	403.9	538.65	551.19
Indene(1,2,3-cd)pyrene	0	0	0.001	0	0
Lead	20.33	0.00	15.87	28.15	42.53
Manganese	67.20	99.62	59.32	147.98	159.66
Mercury	445 kg	550 kg	476 kg	883 kg	896 kg
Nickel	36.881	49.038	27.624	55.82	81.77
n-Hexane	0	0	0	0	24.56
Perylene	0 kg	8 kg	0 kg	5 kg	0 kg
Phenanthrene	0.005	0.008	0.106	0.132	0.067
Phosphorus	992	574	349	NR ⁽²⁾	NR ⁽²⁾
Pyrene	1.100	0.001	0.015	0.022	0.011
Selenium	7.6	9.285	5.15	15.26	20.79
Sulphuric Acid	222.594	289.474	4.972	728.44	698.93
Vanadium	79.4	107.2	64.79	149.46	214.15
Zinc	58.900	80.922	46.95	71.94	132.17

Criteria Air Contaminants (tonnes)	2006 ⁽¹⁾	2005	2004	2003	2002
Carbon Monoxide	8,163.00	12,267.66	11,407.96	13,263.45	11,755.19
Oxides of Nitrogen (as NO _x)	30,841.00	39,780.32	40,617.94	59,159.19	6,6245.19
PM - Total Particulate Matter	8,259.56	10,421.67	8,696.55	12,130.13	12,479.9
PM10 - particulate matter ≤ 10µ ⁽⁵⁾	3,750.55	4,665.46	5,801.61	8,090.62	8,341.12
PM2.5 - particulate matter ≤ 2.5 µ ⁽⁵⁾	1,295.96	1,603.94	2,376.28	3,308.87	3,370.92
Sulphur Dioxide	87,275.59	113,645.3	116,979.3	157,805.7	147,254.4
Volatile Organic Compounds (VOCs)	376.00	437.85	387.88	537.09	557.36

(1) Year 2007 data was not available at the time of printing.

(2) NR = not reported in given year

(3) g TEQ = grams Toxic Equivalent

(4) For detailed information on the breakdown of OPG's NPRI data by emissions to air, water, and land please visit the NPRI web site at http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm

(5) µ = microns (particle diameter)

Environmental Policy

Environmental Policy

Effective: May 10, 2006

Policy Statement: OPG will strive to continually improve its environmental performance by committing to the following seven requirements:

- Requirements:**
- **Meet or Exceed Legal Requirements:** Meet all legal requirements and OPG's voluntary commitments, with the objective of exceeding those standards where appropriate and feasible.
 - **Advance Environmental Stewardship:** Contribute to environmental protection, pollution prevention and energy and resource use efficiency.
 - **Maintain ISO 14001 System:** Maintain registrations to the International Organization for Standardization (ISO) 14001: 2004 Environmental Management System.
 - **Integrate Environment in Decision-Making:** Integrate environmental factors and stakeholder considerations into our planning, decision-making and business practices.
 - **Engage Employees:** Engage and educate employees to conduct their activities in a manner that respects and protects the environment.
 - **Contribute to Our Communities:** Contribute to and enhance the environmental well-being of the communities in which we operate and the broader public who grant us our license to operate.
 - **Communicate:** Measure and publicly communicate our environmental performance with employees, governments, local communities, contractors and other stakeholders.

This Environmental Policy is an important part of OPG's commitment to Sustainable Development.

Accountabilities: The President and CEO is accountable for this Policy.

The Vice President Sustainable Development is accountable for monitoring and reporting regularly to the Executive and Board on OPG's environmental performance and progress in implementing this Policy, including immediate notification of a Significant Environmental Event.

The Business Unit leaders are accountable for environmental performance and compliance within their Business Unit.

All employees have accountability for protecting the environment and for complying with this Policy.

Sponsoring Unit:
Vice President Sustainable Development

Approval: Board of Directors
Date: May 10, 2006

Ontario Power Generation's focus is
on the efficient production and sale of
electricity from our generation assets,
while operating in a safe, open and
environmentally responsible manner.





Forest Stewardship
Council Certified
Cert no. 198,000,1832



100% Post-Consumer
Waste Fiber



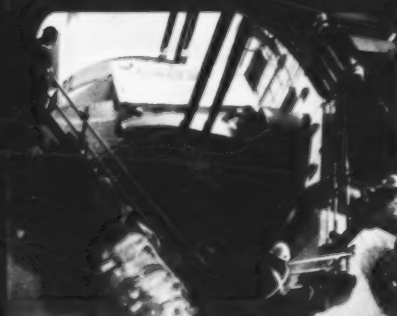
We are committed to protecting the environment and to the responsible use of natural resources. This report is printed on 100 per cent post-consumer recycled paper, processed chlorine and acid-free and is printed with vegetable-based inks.

The production and distribution of this report was carbon neutral.

We welcome any comments or questions you may have. Please call: Vice President Sustainable Development at 1-888-592-6744, or e-mail us at webmaster@opg.com

Our mailing address is: Ontario Power Generation,
700 University Avenue, Toronto, Ontario M5G 1X6

Visit our Web site at www.opg.com



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